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U.S. Dept. of agric. Weather Bureau 1930-45



JAN 21 1931

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U.S. DEPARTMENT OF AGRICULTURE WEATHER BUREAU

### ANNUAL METEOROLOGICAL SUMMARY

WITH COMPARATIVE DATA 1930

BOSTON, MASS.

COMPILED BY G. A. LOVELAND METEOROLOGIST

BOSTON MASS.

### MISCELLANEOUS DATA FOR 1930.

Barometric Pressure (reduced to sea-level). Mean, 30.00 inches; highest, 30.88 inches, January 11; lowest, 28.98 inches, November 25.

Temperature. Greatest monthly range, 69°, February; least monthly range, 36°, July. Highest mean temperature of three consecutive days, 83°, Aug., 3–5; lowest mean temperature of three consecutive days, 18°, February 16–18.

Precipitation. Longest period without precipitation, 29 days, Sept., 9-Oct., 7. Longest period with precipitation, 8 days, Jan., 9-16. Greatest amount in 24 consecutive hours, 3.35 inches, Oct., 15-16. Maximum amount in 5 minutes, 0.22 inch; July 14; 10 minutes, 0.39 inch; July 14; 15 minutes, 0.43 inch; July 14; 30 minutes, 0.57 inch; Oct. 15; 1 hour, 0.97 inch; October 15.

Frost. — Last killing frost in spring occurred on April 24.

First killing frost in autumn occurred on October 21.

Snow. Greatest snowfall in 24 hours, 5.3 inches, February 15-16. Greatest depth of snow on the ground, 5.3 inches, February 16. Last snow in spring occurred on April 8; first snow in Autumn occurred on October 25.

Thunderstorms. First thunderstorm, March 26; last thunderstorm, September 6.

### MONTHLY AND ANNUAL PRECIPITATION

Year	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An'1
1818 1819 1820 1821 1822 1823 1824 1825 1826	2.64 0.70 3.12 1.41 1.29 3.00 3.95 2.79 2.55 3.92	3.49 2.27 4.25 4.42 2.34 4.57 5.99 3.43 1.48 2.97	4.05 6.21 4.90 2.53 2.02 7.72 1.81 4.70 3.81 2.51	6.15 3.74 0.45 4.90 2.99 2.21 4.72 0.37 1.50 4.75	5.96 3.06 5.08 4.84 0.78 6.40 1.43 1.36 0.25 5.34	3.47 3.56 3.42 2.79 3.54 0.93 1.60 4.77 3.85 2.56	4.08 2.02 4.19 2.35 4.32 5.74 0.88 1.24 2.90 2.59	0.46 4.38 5.15 1.58 1.20 1.98 3.68 5.62 12.10 4.88	7.81 5.29 2.43 4.73 2.15 1.95 6.43 2.66 3.03 4.81	2.11 1.40 5.39 2.29 2.53 3.95 1.01 3.21 3.80 5.28	1.91 1.22 3.00 3.12 2.58 1.92 1.72 0.81 2.31 5.71	0.86 1.63 2.80 1.93 1.46 6.93 2.80 4.38 3.56 3.59	42.99 35.48 44.18 36.89 27.20 47.30 [36.02 35.34 41.14 48.91
1828 1829 1830 1831 1832 1833 1834 1835 1836	2. 15 4.93 2.36 4.44 4.47 2.96 1.39 3.25 8.84 4.10	2.79 5.62 1.63 3.68 3.74 2.53 1.13 1.37 3.57 4.14	1.84 4.30 3.51 3.07 2.65 2.71 0.96 4.27 2.90 3.02	2.00 3.45 1.21 6.97 5.56 2.30 2.93 4.54 1.58 3.07	4.67 2.71 3.93 3.65 7.27 1.03 6.33 2.07 1.85 5.79	1.59 1.64 3.46 4.32 0.50 3.23 3.09 2.74 4.33 2.98	4.58 6.98 4.90 5.53 3.41 2.01 7.71 9.07 2.12 1.80	0.37 4.95 2.64 5.57 6.14 0.82 2.47 2.89 1.53 1.67	3.82 2.62 5.65 3.83 2.07 2.88 3.71 1.31 0.54 0.56	2.79 1.65 2.38 4.42 2.46 6.00 4.62 1.87 4.04 1.58	5.55 5.74 5.32 3.20 3.57 5.53 2.90 2.08 5.43 2.35	0.26 2.26 5.96 2.93 4.85 5.86 2.36 2.40 4.13 2.46	32.41 46.85 42.95 51.61 46.69 37.86 39.60 37.86 40.86 33.52
1838 1839 1840 1841 1842 1843 1844 1845 1846 1847	3.07 0.98 3.12 6.00 0.80 2.20 3.68 4.58 3.12 3.28	2.77 3.11 2.57 1.60 3.20 6.08 2.42 4.25 2.95 4.70	3.09 1.18 4.55 3.50 3.35 6.17 6.00 3.83 2.73 4.77	2.62 7.73 4.60 8.82 3.50 3.88 0.20 1.23 1.23 2.20	3.32 4.27 2.23 1.90 2.90 1.60 2.72 2.82 2.02 2.03	2.55 2.25 2.78 1.95 5.30 4.61 1.40 2.05 2.25 4.09	1.20 3.32 2.93 2.10 1.82 2.15 2.17 3.28 2.51 2.65	4.26 5.70 4.00 4.20 4.44 6.88 2.62 1.82 1.80 6.45	9.87 2.00 2.12 2.86 3.25 0.98 3.53 2.23 1.30 6.64	5.02 2.50 4.48 3.80 0.80 4.82 5.80 4.00 I.35 I.05	3.95 1.71 11.63 4.55 4.45 3.40 3.15 10.25 4.17 5.12	0.80 6.35 4.15 5.77 5.30 3.92 3.85 5.98 4.52 3.95	42.52 41.10 49.16 47.05 39.11 46.69 37.54 46.32 29.95 46.93
1848 1849 1850 1851 1852 1853 1854 1856 1857	2.30 0.35 4.59 1.30 4.85 2.44 2.91 7.22 5.32 5.36	3.90 1.15 2.52 4.20 2.85 5.30 4.87 4.67 0.80 2.45	4.05 7.35 5.32 3.88 4.45 2.27 2.84 1.18 1.33 3.09	1.40 0.90 4.82 9.37 10.18 3.78 6.63 4.28 4.37 10.83	6.30 3.10 6.63 3.31 1.95 5.63 4.33 1.20 7.10 5.57	1.73 1.45 2.77 1.80 2.35 0.30 2.47 3.09 2.90 2.02	1.35 0.85 2.70 3.09 3.28 3.64 3.70 4.15 4.02 5.53	3.10 6.25 5.30 1.27 7.63 9.40 0.58 1.46 11.11	3.55 1.25 7.15 3.50 1.65 3.80 3.86 1.13 4.90 2.56	5.10 8.10 2.10 4.43 2.19 3.92 2.08 4.61 2.70 4.50	2.25 5.50 3.32 5.51 3.47 4.43 6.80 5.27 3.33 2.52	3.95 4.64 5.93 4.28	40.98 40.30 53.98 44.31 47.94 48.86 45.71 44.19 52.16 50.87

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MONTHLY AND ANNUAL PRECIPITATION-Continued.

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1850. 1.89 3.85 2.19 1.73 2.55 6.47 56.70 1.89 1.59 4.72 4.40 3.28 3.75 6.47 56.70 1.81 1.81 1.81 1.82 1.82 1.82 1.82 1.82	Year.	Jan	Feb	Maı	Apr	May	Jun	July	Aug	Sep	Oct	No	Dec	An
1861. 6.6.9 4.57 7.48 7.49 1.99 1.99 1.99 1.99 1.99 1.99 1.99 1		3.28						4.56			3.28		6.47	
1862. 8. 30 3. 39 4.70 1.97 2.70 6.78 7.33 4.20 5.61 4.85 8.32 3.01 61.06 1863. 4.71 1.35 11.75 4.72 3.31 1.47 1.09 4.17 2.60 4.85 4.00 5.28 4.93 1865. 4.71 3.68 4.80 5.28 4.93 1865. 4.71 3.68 4.80 5.28 4.93 1865. 4.71 3.68 4.80 5.28 4.81 1867. 6.06 5.55 6.12 2.52 4.11 2.74 4.76 10.78 0.44 6.76 2.32 2.48 55.64 1869. 4.03 5.28 4.80 2.05 6.58 4.44 3.30 2.19 5.18 6.70 6.26 6.70 1.88 5.24 2.05 6.58 7.59 4.44 3.60 1.75 0.60 6.70 1.75 1.75 1.75 1.75 1.75 1.75 1.75 1.75	1860	1.89	3.85	2.19	1.73	2.35	8.01	5.90						
1895. 4. 51 4. 54 6. 50 6. 52				4.70	1.97	2.70	6.78	7.33	4.20	5.61	4.85	8.32	3.01	61.06
1866. 3.73 5.28 4.79 5.08 4.83 2.57 6.90 2.83 4.26 1.42 0.02 0.72 2.73 4.40 4.18 47.83 1866. 3.73 5.28 4.70 2.03 5.04 4.75 10.75 0.44 6.76 2.32 2.48 55.50 1867. 6.06 6.55 6.12 2.52 4.11 2.74 4.75 10.75 0.44 6.76 2.32 2.48 55.50 1859. 4.01 9.88 5.74 2.65 6.85 4.14 3.30 2.19 5.18 6.71 3.74 9.04 66.28 1870. 8.16 7.70 3.48 8.24 2.65 6.85 4.44 3.30 2.19 5.18 6.71 3.74 9.04 66.28 1871. 0.92 2.65 4.55 3.79 4.34 5.55 3.22 3.08 1.30 5.88 6.42 3.38 45.06 1872. 2.11 2.31 4.05 1.31 3.29 4.84 4.00 1.068 6.04 4.85 3.66 3.09 50.23 1873. 5.76 3.21 3.76 3.83 5.16 0.54 3.84 6.21 2.91 5.33 8.34 5.64 3.75 3.71 1875. 3.068 3.74 1.50 7.97 3.71 3.94 3.47 6.67 2.05 1.39 2.85 2.14 4.55 1875. 3.08 3.74 1.50 7.97 3.71 3.94 3.47 6.06 2.88 8.84 9.62 1.33 5.16 0.54 3.84 6.21 2.91 5.33 8.34 5.04 1875. 1877. 3.33 0.46 9.79 4.19 3.38 3.21 2.27 4.49 0.68 8.84 9.62 1.33 5.14 1875. 1.18 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20		4.51	4.54	6.42							3.83			
1868 6.09 1.88 5.04 6.94 10.38 3.79 1.10 7.53 11.95 1.78 5.31 2.32 64.11 1869 4.03 9.88 5.04 6.94 10.38 3.79 1.10 7.53 11.95 1.78 5.31 2.32 64.11 1869 4.03 9.88 5.04 6.94 10.38 3.79 1.10 7.53 11.95 1.78 5.31 2.32 64.11 1869 4.03 9.88 5.04 2.05 6.58 7.59 4.04 1.15 0.06 6.58 6.71 3.74 9.04 6.62 8.18 7.03 4.88 8.42 2.58 7.59 4.02 1.55 0.60 6.58 6.71 3.74 3.62 5.75 1.37 4.38 5.55 3.20 4.02 1.55 0.60 6.58 6.72 3.74 3.05 9.75 1.87 3.20 1.55 0.60 6.58 6.72 3.74 3.05 9.75 1.87 3.20 1.55 0.60 6.58 6.72 3.74 3.05 9.75 1.87 3.20 1.55 0.60 6.58 6.72 3.74 3.05 9.75 1.87 3.20 1.55 0.60 6.58 6.72 3.74 3.05 9.75 1.87 3.20 1.55 0.60 6.58 6.72 3.74 3.05 9.75 1.87 3.20 1.55 0.60 6.58 6.72 3.74 3.05 9.75 1.55 0.55 1.55 1.55 1.55 1.55 1.55 1.5	1865		5.08	4.83	2.57	6.90	2.83	4.26	1.42	0.62	6.21	4.46	4.18	47.83
1869  4.03   9.98   8.74   2.05   6.85   4.44   3.30   2.19   5.18   6.17   3.74   3.62   5.18   1.57   6.50   6.40   3.62   5.18   1.57   6.50   6.40   3.62   5.18   1.57   6.50   6.40   3.62   5.18   1.57   6.50   6.40   3.62   5.18   1.57   6.50   6.50   6.40   3.62   5.18   1.57   6.50   6.40   3.62   5.18   6.40   6.61   6.61   6.61   6.62		3.73 6.06	5.28 6.55			5.04 4.II		5·42 4·76			6.76			50.70
1870   1.0			1.88										2.32	
1873. 5.76 3.21 3.76 3.83 5.16 0.54 3.84 6.21 2.9 5.33 8.4 5.64 8.45 5.36 3.69 5.09 5.23 1874 4.32 3.41 1.60 7.97 3.71 3.94 3.47 6.07 2.05 1.39 2.85 2.14 43.52 1875. 3.68 3.74 5.04 4.92 3.76 7.25 3.93 3.50 3.50 3.12 4.99 5.74 0.75 5.1876. 1.87 4.54 7.19 3.61 2.70 1.72 5.86 1.23 3.84 1.66 11.03 3.71 48.96 1877. 3.33 0.45 9.79 4.19 3.38 3.21 2.27 4.49 0.8 8.84 9.22 1.32 5.14 4.57 1878. 7.60 4.40 5.91 6.14 1.03 2.28 4.59 5.60 6.26 1.32 5.14 4.57 1879. 2.79 4.33 3.94 5.64 5.65 1879. 2.79 4.33 3.99 6.55 0.97 6.24 3.09 6.71 1.04 0.91 2.77 4.22 44.57 1880. 3.74 4.18 3.28 2.88 1.60 0.75 6.86 2.92 3.81 2.80 3.99 6.55 0.97 6.24 3.09 6.71 1.04 0.91 2.77 4.22 44.57 1880. 3.74 4.18 3.28 3.28 1.81 1.00 0.75 6.86 2.92 3.81 2.20 3.34 2.83 3.28 3.28 3.21 2.20 3.31 2.20 3.34 2.83 3.90 1.58 3.84 3.66 3.07 3.03 3.11 2.07 3.23 3.10 3.28 3.28 3.28 3.28 3.28 3.21 2.20 3.20 3.20 3.20 3.20 3.20 3.20 3.20	1870	8.16	7.03	4.88			7.59	4.01	1.57	0.67	6.80	4.40	3.62	59.73
1873 5.76							5.55 4.84					3.66		
1876	1873	5.76	3.21	3.76	3.83	5.16	0.54	3.84	6.21	2.91	5.33	8.34	5.64	54.53
1876.   1.87   3.54   7.19   3.61   2.70   1.72   5.86   1.23   3.84   1.66   11.03   3.71   48.96   1879.   7.60   4.40   5.91   6.14   1.03   3.33   3.21   2.77   4.90   6.06   8.84   9.62   1.32   51.49   1879.   2.79   4.35   3.90   6.15   6.15   1.03   3.72   4.11   3.25   2.85   1.63   0.75   6.16   1.03   2.28   4.57   7.66   3.47   6.76   8.94   6.76   65.53   1881.   7.21   4.89   9.56   1.66   4.16   7.79   2.96   1.23   2.50   2.36   3.15   2.30   3.42   47.33   3.88   1.882.   3.68   4.77   3.35   2.55   6.55   1.03   3.91   1.46   1.09   2.25   2.84   3.73   3.86   52.63   1.883.   3.59   2.74   2.33   2.83   5.11   2.07   2.73   3.91   1.65   0.93   2.29   1.20   2.65   3.88   3.59   3.00   1.15   3.30   4.26   3.70   1.44   7.64   1.70   5.71   5.78   2.09   45.10   1.885.   7.08   7.04   3.20   1.70   3.08   1.34   1.81   3.64   2.73   3.27   3.59   3.66   42.14   1.885.   4.66   3.69   3.86   2.62   1.67   1.98   3.99   3.05   0.97   2.53   2.22   2.71   3375   3.88   3.44   3.63   3.94   1.71   1.54   1.19   3.07   4.15   2.77   5.80   3.05   3.19   3.34   4.01   1.83   3.84   4.83   3	1874	3.68				3.76		3.47		3.12		5.47		
1898   7.60   4.40   5.91   6.14   1.03   2.28   4.57   7.66   3.47   6.76   8.94   6.76   65.53   1897   2.79   4.95   3.95   6.15   6.55   6.29   6.76   6.55   6.29   6.76   6.55   6.55   6.29   6.76   6.56   6.29   6.76   6.56   6.29   6.76   6.56   6.29   6.76   6.56   6.29   6.76   6.56   6.29   6.76   6.56   6.29   6.76   6.56   6.29   6.76   6.56   6.29   6.76   6.56   6.29   6.76   6.56   6.29   6.76   6.76   6.76   6.76   6.56   6.20   6.76	1870	1.87	4.54	7.19	3.61	2.70	1.72	5.86	1.23	3.84	1.66	11.03	3.71	48.96
1890. 2.79 4.35 3.90 6.58 0.97 6.24 3.09 0.71 1.64 0.91 4.22 44.57 1880. 3.72 4.11 3.25 2.85 1.63 0.75 6.86 2.99 2.36 3.15 2.39 3.42 4.73 3.73 3.80 52.63 1881. 7.21 4.189 9.86 1.06 4.16 7.79 2.96 1.23 2.50 2.54 3.73 3.80 52.63 1882. 3.69 2.74 2.33 2.83 5.11 2.07 2.73 0.39 1.50 6.40 1.93 2.29 1.20 2.68 3.71 35.6 1884. 6. 72 5.74 4.86 4.76 3.31 4.01 4.25 5.01 0.31 3.71 73 0.33 4.46 49.18 1885. 5.33 3.00 1.15 3.30 4.26 3.70 1.44 7.64 1.70 5.71 5.78 2.09 45.11 1885. 7.88 7.04 3.20 1.70 3.08 1.34 1.81 3.64 2.73 3.73 3.80 642.14 1887. 4.86 3.69 3.86 2.62 1.67 1.98 3.59 3.05 0.97 2.53 2.22 2.71 33.75 1888. 2.26 2.36 3.32 2.04 5.20 2.69 1.79 6.53 6.77 3.58 4.91 4.91 1.53 39.82 1899. 2.00 2.29 5.88 2.20 4.45 2.21 1.93 3.75 3.95 3.91 3.31 4.91 1.83 39.82 1899. 2.00 2.29 5.88 2.20 4.45 2.21 1.93 2.70 5.04 5.03 3.91 3.34 4.91 1.83 39.82 1899. 3.05 0.97 2.53 2.29 4.85 1.89 3.95 3.73 3.75 2.29 5.50 2.35 3.93 3.94 1.71 1.56 3.06 3.73 3.87 2.29 5.50 2.35 3.89 3.95 1.89 3.70 1.31 1.81 3.64 1.59 2.94 1.83 5.79 1.11 2.72 3.65 2.25 1.72 6.46 1.59 2.94 1.83 5.78 1.81 1.81 3.64 1.81 3.64 1.59 2.94 1.83 5.79 1.11 2.72 3.65 2.71 1.73 2.95 3.44 1.53 6.11 3.10 4.88 1.81 3.64 1.81 3.64 1.82 3.70 1.71 1.89 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70						į.								
1881 7.21	1879	2.79	4.35	3.90	6.58	0.97	6.24	3.09	6.71	1.84	0.91	2.97	4.22	44.57
1882 3,68 4,77   3,35   2,59   6,05   1,03   3,01   1,46   10,93   2,29   1,20   2,65   43,82   1884 6,27   5,74   4,86   4,76   3,31   4,01   4,25   5,01   0,31   3,17   3,03   4,46   4,185   4,185   5,33   3,00   1,15   3,39   4,26   3,70   1,44   7,64   1,70   5,71   5,78   2,09   45,10   1885 5,33   3,00   1,15   3,39   4,26   3,70   1,44   7,64   1,70   5,77   5,76   2,09   45,10   1886 7,08   7,04   3,20   1,70   3,08   1,34   1,81   3,64   2,73   3,27   3,59   3,66   2,18   3,66   2,22   2,71   3,175   1888 2,26   2,36   3,32   2,04   5,20   2,69   1,79   6,53   6,77   3,58   4,97   4,38   45,89   18890 2,10   2,20   2,29   5,88   2,20   4,48   2,21   1,93   2,70   5,04   5,20   0,97   2,53   0,97   3,72   3,914   3,918   3				3.25	1.66						3.15 2.84		3.42	
1884. 6. 6. 27 5.74 4.86 4.76 3.31 4.01 4.25 5.01 0.31 3.17 3.03 4.46 4.91.8185. 5.33 3.00 1.15 3.30 4.26 3.70 1.44 7.764 1.70 5.71 5.72 5.70 2.09 45.10 1886. 7.08 7.04 3.20 1.70 3.08 1.34 1.81 3.64 2.73 3.27 3.59 3.66 42.14 1887. 4.86 3.69 3.86 2.62 1.67 1.68 1.98 3.59 3.05 0.97 2.53 2.22 2.71 33.75 1888. 2.26 2.36 3.32 2.04 5.20 2.69 1.79 6.53 6.77 3.58 4.97 4.38 45.89 1889. 2.20 2.29 5.88 2.29 4.48 2.21 1.93 3.07 3.31 4.91 1.83 39.82 1890. 2.00 2.29 5.88 2.29 4.48 2.21 1.93 2.70 5.04 5.03 0.97 2.31 4.91 1.83 39.82 1891. 4.39 3.66 3.94 1.71 1.65 3.06 3.73 3.87 2.29 5.56 2.35 3.58 39.14 1.75 1.86 2.71 1.83 3.05 2.20 1.72 6.46 1.55 2.94 1.85 5.16 3.79 3.71 3.72 39.14 1.89 325 6 6.22 2.80 3.33 5.83 2.20 1.72 6.46 1.55 2.94 1.85 5.16 3.75 2.77 1.896. 2.25 3.94 5.41 1.55 1.68 2.71 2.99 2.15 6.40 3.15 3.70 2.45 3.66 2.81 8.94 3.79 1.11 2.72 3.65 2.71 1.73 2.95 3.24 1.55 6.19 8.07 2.45 40.17 1.899. 3.16 2.12 2.79 3.74 4.00 4.46 4.22 3.95 2.32 2.40 2.51 1.93 2.94 2.99 2.94 1.84 5.11 3.00 2.95 2.95 2.95 2.95 2.90 2.40 2.51 1.52 34.69 1.900. 4.20 6.83 4.60 1.90 5.07 1.85 2.90 2.15 6.40 3.15 3.70 1.70 37.55 1.900. 1.15 4.00 4.40 4.22 3.95 2.35 3.43 3.99 2.90 2.75 2.90 2.15 6.40 3.15 3.70 1.70 37.55 1.900. 1.15 4.90 5.29 2.87 1.07 1.77 2.88 2.20 2.25 3.02 2.24 1.84 9.70 1.900. 4.20 6.83 4.60 1.90 5.07 1.85 2.09 2.46 4.62 2.15 3.04 4.89 1.90 3.90 3.90 3.24 1.55 1.52 3.469 1.900. 4.20 6.83 4.60 1.90 5.07 1.85 2.09 2.45 4.43 3.95 1.48 2.27 1.90 2.15 6.40 3.15 3.70 1.70 37.55 1.900. 1.15 4.90 5.29 2.87 1.07 1.77 2.88 2.20 2.08 4.36 1.09 2.24 1.84 9.19 1.900. 4.20 6.83 4.60 1.90 5.07 1.85 2.09 2.46 4.62 2.15 3.04 4.87 4.90 1.90 4.48 2.20 2.43 1.44 1.47 5.23 1.00 3.39 5.10 0.82 1.77 3.23 3.26 4.90 1.90 3.25 2.25 3.44 3.35 2.20 2.25 3.34 3.95 1.90 3.30 2.25 2.25 3.34 3.30 3.25 2.25 3.30 3.25 2.25 3.30 3.29 2.41 1.40 3.38 2.00 2.25 1.40 4.25 3.44 1.25 2.22 2.00 4.85 1.90 3.30 2.25 1.10 3.25 3.90 2.25 2.10 4.90 4.90 3.30 2.25 2.10 3.30 2.25 2.25 3.30 3.25 2.25 3.30 3.25 2.25 3.30 3.25 2.25 3.30 3.25 2.25 3.30 3.25 2.25 3.30 3.2	1882	3.68	4.77	3.35	2.50	6.05	1.03	3.91	1.46	10.93		I.20	2.65	43.82
1885 7.08 7.04 3.20 1.70 3.08 1.34 1.51 3.30 4.26 3.70 1.44 7.64 1.70 5.71 5.78 2.09 45.10 1886 7.08 7.04 3.20 1.70 3.08 11.34 1.81 3.64 2.73 3.27 3.59 3.66 42.14 1887 4.86 3.69 3.86 2.62 1.67 1.98 3.59 3.05 0.97 2.53 2.22 2.71 33:75 1888 2.26 2.36 3.32 2.04 5.20 2.69 1.79 5.80 3.95 0.97 2.53 2.22 2.71 33:75 1889 4.11 1.54 1.10 3.07 4.15 2.77 5.80 3.95 3.10 3.31 4.91 1.83 3.82 1899 2.60 2.29 5.88 2.29 4.88 2.21 1.93 2.70 5.04 5.63 0.97 3.72 39.14 1891 4.39 3.66 3.94 1.71 1.56 3.06 3.73 3.87 2.29 5.56 2.35 3.58 39.70 1892 4.62 2.15 3.91 0.93 5.15 3.05 2.59 4.87 1.90 2.31 4.45 1.12 37.02 1893 2.56 6.22 2.80 3.13 5.23 2.20 1.72 6.46 1.59 2.94 1.83 5.16 1.89 1.30 1 3.15 1.01 3.78 4.12 0.80 3.09 3.03 2.14 5.11 3.10 4.28 36.62 1895 3.79 1.11 2.72 3.65 2.71 1.73 2.99 3.24 1.53 6.19 8.07 2.45 40.17 1896 2.25 3.94 5.41 1.56 1.68 2.71 1.79 2.95 2.38 0.41 6.19 3.92 40.77 1896 3.50 4.10 3.15 3.70 0.44 4.64 4.22 3.95 2.38 0.41 6.19 3.92 40.77 1898 3.50 4.81 1.82 6.39 4.33 1.60 4.42 6.38 1.93 7.17 5.32 2.19 4.98 1.89 1.90 1.90 4.20 6.83 4.60 1.90 5.79 1.85 2.90 0.81 2.86 2.52 2.52 5.90 2.40 2.21 1.52 3.40 9.90 1.90 1.90 4.20 6.83 4.60 1.90 5.77 1.85 2.20 2.25 2.50 3.00 2.24 1.84 3.94 9.90 1.90 1.90 1.90 4.20 6.83 4.60 1.90 5.74 1.35 5.20 1.90 1.90 4.20 6.83 4.60 1.90 5.74 1.33 5.20 2.90 2.40 2.21 1.52 3.40 9.90 1.90 1.65 4.19 5.29 2.87 1.07 1.77 2.88 2.20 2.05 3.00 2.24 4.20 4.48 3.93 1.90 1.90 4.24 3.14 1.33 2.20 6.14 1.33 5.20 2.25 2.25 3.90 3.00 2.44 1.87 2.25 44.05 1.90 1.90 3.94 4.71 3.38 3.20 4.48 3.93 3.95 1.48 9.90 4.48 3.93 3.90 3.90 3.94 4.71 3.38 2.06 1.23 2.19 5.57 2.13 1.70 3.23 3.90 1.90 3.94 4.71 3.28 3.90 3.91 4.91 1.33 3.20 3.91 1.90 3.94 4.71 3.38 3.20 3.91 1.90 3.94 4.71 3.38 3.90 3.91 3.93 3.91 3.93 3.93 3.93 3.93 3.93	1884	3.59		4.86	4.76									
1887 4.86 3.69 3.89 2.62 1.67 1.98 3.59 3.05 0.97 2.53 2.22 2.71 33:75 18888 2.26 2.36 3.32 2.04 5.20 2.69 1.79 6.53 6.77 3.58 4.97 4.38 45.89 1890 2.60 2.29 5.88 2.29 4.48 2.21 1.93 2.70 5.04 5.63 0.97 3.72 3.91 1891 4.39 3.66 3.94 1.71 1.56 3.06 3.73 3.75 2.29 5.56 2.35 3.58 39.70 1892 4.62 2.15 3.91 0.93 5.15 3.05 2.56 4.87 1.99 2.31 4.45 1.12 37.02 1893 2.56 6.22 2.80 3.13 5.23 2.20 1.72 6.46 1.59 2.94 1.83 5.16 41.84 1.89 1.91 1.91 1.92 1.92 1.93 1.94 1.94 1.93 1.93 1.93 1.91 1.91 1.95 1.93 1.93 1.93 1.93 1.94 1.93 1.93 1.93 1.93 1.94 1.93 1.93 1.93 1.94 1.94 1.94 1.93 1.93 1.94 1.94 1.94 1.94 1.94 1.94 1.94 1.94	1885	5.33	3.00	1.15	3.30	4.26	3.70		7.64		5.71		2.09	
1899 4.11 1.54 1.59 3.07 4.15 2.77 5.80 3.95 3.19 3.31 4.91 1.83 39.82 1890 2.06 2.20 5.88 2.29 4.48 2.21 1.93 2.70 5.04 5.63 0.97 3.72 39.81 1891 4.39 3.66 3.94 1.71 1.56 3.06 3.05 2.55 4.87 1.90 2.31 4.45 1.12 37.02 1892 4.62 2.15 3.91 0.93 5.15 3.05 2.56 4.87 1.90 2.31 4.45 1.12 37.02 1893 2.56 6.22 2.80 3.13 5.23 2.20 1.72 6.46 1.59 2.94 1.83 5.16 41.84 1.84 1.89 4.3 0.1 3.15 1.01 3.78 4.12 0.80 3.09 3.03 2.14 5.11 3.10 4.28 36.62 1.895 3.79 1.11 2.72 3.65 2.71 1.73 2.95 3.24 1.53 6.19 8.07 2.45 40.17 1896 2.25 3.94 5.41 1.56 1.68 2.71 2.90 2.15 6.40 3.15 3.07 1.70 37.55 1897 3.16 2.12 2.79 3.17 4.00 4.46 4.22 3.95 2.38 0.41 6.19 3.92 40.77 1898 3.50 4.81 1.82 6.39 4.33 1.60 4.42 6.38 1.93 7.17 5.32 2.19 40.77 1898 4.19 3.03 5.95 1.29 0.81 2.86 2.52 2.52 2.52 5.09 2.40 2.51 1.52 34.69 1900 4.20 6.83 4.60 1.90 5.07 1.85 2.60 2.46 4.62 3.41 4.17 1.2.2 34.69 1900 4.20 6.83 4.60 1.90 5.07 1.85 2.60 2.46 4.62 3.41 4.41 1.2.2 34.69 1903 3.43 3.90 5.95 4.43 0.32 7.17 2.88 2.20 2.08 4.36 1.09 4.48 33.93 1903 3.43 3.90 5.95 4.43 0.32 7.19 2.99 3.33 2.43 4.50 1.09 4.43 3.93 1.90 3.3 2.44 4.80 2.49 2.43 9.14 3.38 2.06 1.23 2.19 5.57 2.13 1.70 2.25 34.69 1903 4.20 6.83 1.00 2.25 2.14 1.47 5.23 1.00 3.39 5.10 0.82 1.77 3.23 3.20 1906 2.96 2.66 5.45 2.15 4.91 2.57 5.38 1.58 2.60 2.08 4.36 1.09 4.48 33.93 1.00 4.40 91 1.59 2.25 2.14 1.47 5.23 1.00 3.39 5.10 0.82 1.77 3.23 3.20 1906 2.96 2.66 5.45 2.15 4.91 2.57 5.38 1.58 2.60 1.23 2.19 5.57 2.13 1.70 2.52 39.64 1.90 3.94 4.71 3.28 3.99 4.81 4.77 3.22 5.05 3.07 2.74 1.88 1.06 3.31 3.12 2.56 1.09 1.10 7.43 2.54 6.22 4.31 3.75 2.10 2.83 3.94 4.71 3.25 2.95 2.88 3.94 4.71 3.22 6.35 3.44 1.25 2.22 1.02 4.89 1.15 0.98 2.14 1.14 3.75 2.10 2.83 3.91 1.10 4.25 3.44 1.25 2.22 1.02 4.89 1.15 0.98 2.14 1.14 3.75 2.10 2.83 3.95 1.91 2.2 2.58 2.58 2.28 0.35 3.67 4.65 4.77 2.78 3.91 1.00 0.94 1.07 3.03 3.76 3.05 3.11 1.01 4.25 3.84 1.18 3.04 4.77 3.22 6.35 5.66 2.95 2.88 3.72 5.88 3.72 5.88 3.72 5.88 3.72 5.88 3.72 5.88 3.72 5.88 3.72 5.88 3.72 5.88 3.7		4.86		3.86	2.62	1.67	1.98						2.71	
1890   2.00   2.29   5.88   2.29   4.48   2.21   1.93   2.70   5.04   5.63   0.97   3.72   39.14   1.891   4.29   3.66   3.794   1.71   1.56   3.06   3.73   3.57   2.29   5.63   2.35   3.58   39.70   1892   4.62   2.15   3.91   0.93   5.15   3.05   2.56   4.87   1.90   2.31   4.45   1.12   37.02   1893   2.56   6.22   2.80   3.13   5.23   2.20   1.72   6.46   1.59   2.94   1.83   5.16   41.84   3.61   1895   3.79   1.11   2.72   3.65   2.71   1.73   2.95   3.24   1.53   6.19   8.67   2.45   40.17   1896   2.25   3.94   5.41   1.55   1.68   2.71   2.90   2.15   6.40   3.15   3.70   1.70   37.55   1897   3.16   2.12   2.79   3.17   4.00   4.46   4.22   3.95   2.38   0.41   6.19   3.92   40.77   1898   3.50   4.81   1.82   6.39   4.33   1.60   4.42   6.38   1.03   7.17   5.32   2.19   49.86   1990   4.20   6.83   4.60   1.99   5.07   1.85   2.69   2.46   4.62   3.41   4.17   2.25   44.05   1991   1.56   0.66   6.58   7.43   6.31   1.31   5.20   3.25   2.50   3.02   2.41   4.77   2.25   44.05   1991   1.56   1.69   2.95   7.17   7.72   2.88   2.20   2.08   4.36   1.09   4.48   33.93   1.93   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   48.49   48.72   1.902   1.05   4.19   2.43   9.14   3.38   2.06   1.23   2.19   5.57   2.13   1.70   2.52   3.64   4.91   3.38   2.06   1.23   2.19   5.57   2.13   1.70   2.52   3.64   4.91   3.78   2.06   1.23   2.19   5.57   2.13   1.70   2.52   3.64   4.91   3.38   2.06   1.23   2.19   5.57   2.13   1.70   2.52   3.64   4.91   3.78   2.06   1.23   2.19   5.57   2.13   1.70   2.52   3.64   4.91   3.78   2.06   1.23   2.19   5.57   2.13   1.70   2.52   3.64   4.91   3.78   2.06   1.23   2.19   5.57   2.13   1.70   2.52   3.64   4.91   3.78   3.91   2.25   3.55   3.51   1.77   3.23   3.94   3.35   3.95   1.48   3.97   3.78   1.08   3.77   3.75								1.79					4.38 1.83	45.89
1892 4.62       2.15       3.91       0.93       5.15       3.05       2.56       4.27       1.99       2.31       4.45       1.12       37.02         1893 2.56       6.22       2.28       3.13       5.23       2.20       1.72       6.46       1.59       2.94       4.18       4.88       4.12       0.80       3.09       3.03       2.14       5.11       3.10       4.28       36.62       2.71       1.73       2.98       3.24       1.53       6.10       8.07       2.45       40.17       1.88       2.71       2.99       2.15       6.40       3.15       3.70       1.77       7.03       7.55       2.71       1.73       2.99       2.15       6.40       3.15       3.70       1.70       37.75       1.70       37.75       1.89       1.81       1.82       6.39       4.40       4.46       4.22       3.95       2.38       0.41       6.19       3.92       40.77       1.70       3.75       1.85       2.69       2.46       4.62       3.41       4.17       2.25       44.05       1.90       1.90       1.90       1.91       1.77       2.88       2.20       2.55       2.50       2.40       2.41       1.41	1890	2.60	2.29	5.88	2.29	4.48	2.21	1.93	2.70	5.04	5.63	0.97	3.72	39.14
1893   2.56   6.22   2.80   3.73   5.23   2.20   1.72   6.46   1.55   2.94   1.83   5.16   41.84   884   3.01   3.15   3.15   3.10   3.78   4.12   0.80   3.09   3.03   2.14   5.11   3.10   4.28   36.62   3.65   3.79   1.11   3.10   4.28   36.62   3.65   3.70   3.15   3.70   3.75   3.75   3.94   3.16   2.12   2.79   3.17   4.00   4.46   4.22   3.95   2.38   0.41   5.70   3.75   3.75   3.75   3.94   3.16   2.12   2.79   3.17   4.00   4.46   4.22   3.95   2.38   0.41   5.70   5.70   1.70   3.755   3.94   3.16   3.15   3.70   1.70   3.755   3.94   3.16   3.15   3.70   1.70   3.755   3.96   3.16   3.15   3.70   3.75   3.75   3.94   3.16   3.16   3.15   3.70   3.75   3.7							3.05						1.12	
1896   2.25   3.49   5.41   1.56   1.68   2.71   2.90   2.15   6.40   3.15   3.70   1.70   37.55   1897   3.16   2.12   2.79   3.17   4.00   4.46   4.22   3.95   2.38   0.41   0.19   3.92   40.77   1898   3.50   4.81   1.82   6.39   4.33   1.60   4.42   6.38   1.93   7.17   5.32   2.19   49.86   1899   4.19   3.03   5.95   1.29   0.81   2.86   2.52   2.52   5.09   2.40   2.51   1.52   34.69   1900   4.20   6.38   4.60   1.90   5.70   1.85   2.69   2.46   4.62   3.41   4.17   2.25   44.05   1901   1.55   0.66   6.58   7.43   6.31   1.31   5.20   3.25   2.50   3.02   2.41   8.49   48.72   1902   1.65   4.19   5.29   2.87   1.07   1.77   2.88   2.20   2.06   4.36   1.09   4.48   33.93   1903   3.43   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   4.19   1904   4.80   2.49   2.43   9.14   3.38   2.06   1.23   2.19   5.57   2.13   1.70   2.52   39.64   1905   4.09   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   32.08   1906   2.96   2.66   5.45   2.15   4.91   2.57   5.38   1.58   2.64   3.88   2.55   3.96   40.69   1907   2.54   1.88   1.66   3.31   3.12   2.56   1.09   1.10   7.43   2.54   6.02   4.31   3.75   1908   3.44   1.25   2.22   1.02   4.89   1.15   0.98   2.14   1.14   3.75   2.10   28.33   1911   2.28   2.85   2.95   2.28   0.35   3.67   4.65   4.15   0.98   2.14   1.14   3.75   2.10   28.33   1915   2.28   2.28   2.28   2.28   3.35   3.67   4.65   4.15   0.98   2.14   1.14   3.75   2.10   28.33   1915   2.28   2.28   2.28   2.28   3.35   3.67   4.65   4.16   4.19   3.59   3.61   3.65   3.67   4.65   4.10   3.15   3.04   3.04   3.04   3.04   3.05   3.05   3.05   3.05   3.05   3.05   3.05   3.05   3.05   3.	1893	2.56	6.22	2.80	3.13	5.23	2.20	1.72		1.59	2.94	1.83	5.16	41.84
1896       2.25       3.94       5.41       1.56       1.68       2.71       2.90       2.15       6.40       3.15       3.70       1.70       37.55         1898       3.16       2.12       2.79       3.17       4.00       4.46       4.22       3.95       2.38       0.41       6.19       3.92       40.77         1898       3.50       4.81       1.82       6.39       4.33       1.60       4.42       6.38       1.93       7.17       5.32       2.19       49.86         1899       4.19       3.03       5.95       1.29       0.81       2.86       2.52       2.52       5.09       2.40       2.51       1.52       34.69         1900       4.20       6.83       4.60       1.90       5.07       1.85       2.69       2.46       4.62       3.41       4.17       2.25       44.91       8.72       190       2.40       2.43       3.91       1.41       1.71       2.88       2.20       2.08       4.36       1.09       4.48       3.29       1.48       2.57       41.97       1.29       3.33       2.43       3.95       1.48       2.57       41.99       1.94       1.49 <t< td=""><td></td><td>3.79</td><td>1.11</td><td></td><td>3.70</td><td></td><td></td><td></td><td>3.24</td><td></td><td>6.19</td><td>8.07</td><td></td><td></td></t<>		3.79	1.11		3.70				3.24		6.19	8.07		
1869   4.19   3.03   5.95   1.29   0.81   2.86   2.52   2.52   5.09   2.40   2.51   1.52   34.69   1900   4.20   6.83   4.60   1.90   5.07   1.85   2.69   2.46   4.62   3.41   4.17   2.25   44.05   1901   1.56   0.66   6.58   7.43   6.31   1.31   5.20   3.25   2.50   3.02   2.41   8.49   48.72   1902   1.65   4.19   5.29   2.87   1.07   1.77   2.88   2.20   2.08   4.36   1.09   4.48   33.93   1903   3.43   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   41.97   1904   4.80   2.49   2.43   9.14   3.38   2.06   1.23   2.19   5.57   2.13   1.70   2.52   2.39   64.1905   4.09   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   32.08   1906   2.96   2.66   5.45   2.15   4.91   2.57   5.38   1.58   2.64   3.88   2.55   3.96   40.69   1907   2.51   1.88   1.66   3.31   3.12   2.56   1.09   1.10   7.43   2.54   6.02   4.31   37.56   1908   2.47   2.96   2.97   1.70   3.78   1.08   3.17   4.35   0.68   3.70   0.74   2.47   30.07   1909   3.94   4.71   3.28   3.92   2.33   4.45   0.97   3.55   5.15   1.07   4.11   3.19   40.67   1910   4.25   3.44   1.25   2.22   1.02   4.89   1.15   0.98   2.14   1.14   3.75   2.10   28.33   1911   2.28   2.85   2.95   2.28   0.35   3.67   4.65   4.17   2.95   2.27   4.29   3.07   35.78   1912   2.87   2.38   4.18   3.07   4.04   0.27   5.16   1.94   1.67   1.00   2.61   5.36   34.55   1913   2.38   3.99   4.81   4.77   3.22   0.64   2.69   2.86   2.51   6.04   2.15   3.05   38.11   1914   3.26   3.07   4.16   5.87   2.78   1.40   2.64   3.20   0.21   1.54   2.72   3.46   3.43   1.91   3.26   2.66   4.11   2.33   4.25   1.88   8.55   5.66   2.91   1.59   0.99   1.20   3.21   3.44   0.91   3.08   3.99   1.98   3.11   3.06   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   3.45   3.99   1.91   3.62   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   3.45   3.99   1.91   3.62   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36	1896	2.25						2.90				3.70		37·55 40.77
1900   4.20   6.83   4.60   1.90   5.c7   1.85   2.69   2.46   4.62   3.41   4.17   2.25   44.05   1.901.   1.56   6.58   7.43   6.31   1.31   5.20   3.25   2.50   3.02   2.41   8.49   48.72   1902   1.65   4.19   5.29   2.87   1.07   1.77   2.88   2.20   2.08   4.36   1.09   4.48   33.93   1903   3.43   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   41.97   1904   4.80   2.49   2.43   9.14   3.38   2.06   1.23   2.19   5.57   2.13   1.70   2.52   39.64   1905   4.09   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   32.08   1906   2.96   2.66   5.45   2.15   4.91   2.57   5.38   1.58   2.64   3.88   2.55   3.96   40.69   1907   2.54   1.88   1.66   3.31   3.12   2.56   1.09   1.10   7.43   2.54   6.02   4.31   37.56   1908   2.47   2.96   2.97   1.70   3.78   1.08   3.17   4.35   0.68   3.70   0.74   2.47   30.07   1909   3.94   4.71   3.28   3.92   2.33   4.45   0.97   3.55   5.15   1.07   4.11   3.75   2.10   28.33   1911   2.28   2.85   2.95   2.28   0.35   3.67   4.65   4.17   2.95   2.27   4.29   3.07   35.78   1912   2.87   2.38   4.18   3.07   4.04   0.27   5.16   1.94   1.67   1.00   2.61   5.36   34.55   1913   2.38   2.99   4.81   4.77   3.22   0.64   2.69   2.66   2.51   6.04   2.15   3.05   38.11   1914   3.26   3.47   T.   1.86   1.64   1.39   8.85   5.65   0.69   2.82   2.14   3.94   38.76   1914   3.26   3.47   T.   1.86   1.64   1.39   8.85   5.65   0.69   2.82   2.14   3.94   3.76   1916   1.23   5.18   3.20   4.51   2.83   5.04   5.67   2.19   1.90   0.99   1.20   3.21   34.40   1.91   3.62   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   3.89   3.99   1.91   3.62   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   3.89   3.99   1.92   2.24   2.64   4.35   2.48   5.44   8.05   2.32   1.90   1.64   5.46   3.89   3.49   1.91   3.62   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   3.89   3.51   3.60   3.27   3.44   3.99   3.54   3.49   3.55						4.33						5.32		49.86
1901   1.5b   0.6b   6.58   7.43   6.31   1.31   5.20   3.25   2.50   3.02   2.41   8.49   48.72     1902   1.65   4.19   5.29   2.87   1.07   1.77   2.88   2.20   2.08   4.36   1.09   4.48   33.93     1903   3.43   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   41.97     1904   4.80   2.49   2.43   9.14   3.38   2.06   1.23   2.19   5.57   2.13   1.70   2.52   39.64     1905   4.09   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   32.08     1906   2.96   2.66   5.45   2.15   4.91   2.57   5.38   1.58   2.64   3.88   2.55   3.96   40.69     1907   2.54   1.88   1.66   3.31   3.12   2.56   1.09   1.10   7.43   2.54   6.02   4.31   37.56     1908   2.47   2.96   2.97   1.70   3.78   1.08   3.17   4.35   0.68   3.70   0.74   2.47   30.97     1909   3.94   4.71   3.28   3.92   2.33   4.45   0.97   3.55   5.15   1.07   4.11   3.19   40.67     1910   4.25   3.44   1.25   2.22   1.02   4.89   1.15   0.98   2.14   1.14   3.75   2.10   28.33     1911   2.28   2.85   2.95   2.28   0.35   3.67   4.65   4.17   2.95   2.27   4.29   3.07   35.78     1912   2.87   2.38   4.18   3.07   4.04   0.27   5.16   1.94   1.67   1.00   2.61   5.36   34.55     1913   3.26   3.07   4.16   5.87   2.78   1.40   2.64   3.20   0.21   1.54   2.72   3.46   34.31     1914   3.26   3.07   4.16   5.87   2.78   1.40   2.64   3.20   0.21   1.54   2.72   3.46   34.31     1915   6.33   3.47   T.   1.86   1.64   1.39   8.85   5.63   0.69   2.82   2.14   3.94   38.76     1916   1.23   5.18   3.20   4.51   2.83   5.04   5.67   2.19   1.90   0.94   1.67   3.00   37.36     1917   2.82   2.67   3.73   2.72   4.45   4.05   1.10   7.06   1.91   5.33   0.59   2.56   38.99     1918   3.11   2.30   3.19   3.08   1.99   1.94   2.64   3.50   3.89   3.57   5.36   1.63   42.70     1922   2.72   5.88   3.72   5.68   5.26   5.78   1.56   2.32   1.90   1.64   5.46   3.89   45.81     1921   2.24   2.64   1.92   4.62   3.64   3.58   1.169   1.65   1.9			6.83	4.60				2.69		4.62	3.41	4.17	2.25	44.05
1903   3.43   3.96   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   41.97   1.94   1.48   2.49   2.43   9.14   3.38   2.06   1.23   2.19   3.33   2.43   3.95   1.48   2.57   3.9.64   1.95   2.49   2.45   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   32.08   1.906   2.96   2.66   5.45   2.15   4.91   2.57   5.38   1.58   2.64   3.88   2.55   3.96   40.69   1.907   2.54   1.88   1.66   3.31   3.12   2.56   1.09   1.10   7.43   2.54   6.02   4.31   37.56   1.98   3.94   4.71   3.28   3.92   2.33   4.45   0.97   3.55   5.15   1.07   4.11   3.19   40.67   1.910   4.25   3.44   1.25   2.22   1.02   4.89   1.15   0.98   2.14   1.14   3.75   2.10   28.33   1.911   2.28   2.85   2.95   2.28   0.35   3.67   4.65   4.17   2.95   2.27   4.29   3.07   35.78   1.912   2.87   2.38   4.18   3.07   4.04   0.27   5.16   1.94   1.67   1.00   2.61   5.36   34.55   1.913   2.38   2.99   4.81   4.77   3.22   0.64   2.69   2.86   2.51   6.04   2.15   3.05   38.11   1.915   6.33   3.47   T.   1.86   1.64   1.39   8.85   5.63   0.69   2.82   2.14   3.94   38.76   1.916   1.23   5.18   3.20   4.51   2.83   5.04   5.67   2.19   1.90   0.94   1.67   3.00   37.36   1.917   2.82   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   1.63   42.70   1.920   2.72   5.88   3.72   5.68   5.26   5.78   1.56   2.32   1.90   1.64   5.46   3.89   45.81   1.921   2.24   2.64   4.35   2.48   5.34   8.05   2.63   4.75   3.66   4.97   2.56   3.89   4.98   4.98   3.49   4.922   2.72   5.88   3.72   5.68   5.26   5.78   1.56   2.32   1.90   1.64   5.46   3.89   4.581   1.922   2.24   2.64   4.35   2.48   5.34   8.05   2.63   4.75   3.66   4.97   0.84   3.01   4.11   3.923   3.66   3.66   3.69   3.37   3.40   3.922   3.75   5.68   3.48   5.26   5.78   1.56   3.22   3.13   5.36   3.59   3.49			0.66		7.43			5.20					8.49	
$ \begin{array}{c} 1995 \\ 1996 \\ 2.96 \\ 2.06 \\ 5.45 \\ 5.45 \\ 2.15 \\ 4.91 \\ 2.57 \\ 5.23 \\ 1.00 \\ 3.39 \\ 5.10 \\ 3.39 \\ 3.510 \\ 3.88 \\ 2.55 \\ 3.90 \\ 40.69 \\ 4.91 \\ 3.75 \\ 1.00 \\ 1.10 \\ 7.43 \\ 2.54 \\ 1.00 \\ 1.10 \\ 7.43 \\ 2.54 \\ 1.00 \\ 3.88 \\ 2.55 \\ 3.96 \\ 40.69 \\ 4.91 \\ 3.75 \\ 1.00 \\ 1.10 \\ 7.43 \\ 2.54 \\ 1.00 \\ 1.10 \\ 7.43 \\ 2.54 \\ 1.00 \\ 3.88 \\ 2.55 \\ 3.96 \\ 40.69 \\ 4.91 \\ 3.75 \\ 1.00 \\ 1.10 \\ 7.43 \\ 2.54 \\ 1.00 \\ 1.00 \\ 3.88 \\ 2.55 \\ 3.90 \\ 4.91 \\ 3.75 \\ 1.00 \\ 1.10 \\ 7.43 \\ 2.54 \\ 1.00 \\ 1.00 \\ 3.88 \\ 2.55 \\ 3.90 \\ 4.91 \\ 3.96 \\ 3.90 \\ 4.91 \\ 3.90 \\ 3.94 \\ 4.11 \\ 3.75 \\ 3.20 \\ 3.92 \\ 1.10 \\ 3.98 \\ 3.11 \\ 2.28 \\ 2.85 \\ 2.95 \\ 2.28 \\ 3.44 \\ 1.25 \\ 2.22 \\ 1.02 \\ 4.89 \\ 3.07 \\ 3.57 \\ 3.67 \\ 4.05 \\ 4.05 \\ 1.00 \\ 4.05 \\ 1.00 \\ 3.00 \\ $	1903	3.43	3.90	5.95	4.43	0.32	7.19	2.99	3.33	2.43	3.95	1.48	2.57	41.97
1906         2.96         2.66         5.45         2.15         4.91         2.57         5.38         1.58         2.64         3.88         2.55         3.96         40.69           1907         2.54         1.88         1.66         3.31         3.12         2.57         5.38         1.58         2.64         3.88         2.55         3.96         40.69           1908         2.47         2.96         2.97         1.70         3.78         1.08         3.17         4.35         0.68         3.70         0.74         2.47         3.07         40.67         4.11         3.19         40.67         4.11         3.75         2.10         28.33         3.92         2.23         4.45         0.97         3.55         5.15         1.07         4.11         3.19         40.67         40.67         4.17         2.95         2.27         4.29         3.07         4.06         4.89         1.15         0.98         2.14         1.14         3.75         2.10         28.33         3.91         3.47         7.1         1.86         1.64         0.27         5.16         1.94         1.67         1.00         2.51         1.94         1.67         1.00         2.51				2.43		3.38					0.82			
1908   2.47   2.96   2.97   1.70   3.78   1.08   3.17   4.35   0.68   3.70   0.74   2.47   30.07     1909   3.94   4.71   3.28   3.92   2.33   4.45   0.97   3.55   5.15   1.07   4.11   3.19   40.67     1910   4.25   3.44   1.25   2.22   1.02   4.89   1.15   0.98   2.14   1.14   3.75   2.10   28.33     1911   2.28   2.85   2.95   2.28   0.35   3.67   4.65   4.17   2.95   2.27   4.29   3.07   35.78     1912   2.87   2.38   4.18   3.07   4.04   0.27   5.16   1.94   1.67   1.00   2.61   5.36   34.55     1913   2.38   2.99   4.81   4.77   3.22   0.64   2.69   2.86   2.51   6.04   2.15   3.05   38.11     1914   3.26   3.07   4.16   5.87   2.78   1.40   2.64   3.20   0.21   1.54   2.72   3.46   34.31     1915   6.33   3.47   T.   1.86   1.64   1.39   8.85   5.63   0.69   2.82   2.14   3.94   38.76     1916   1.23   5.18   3.20   4.51   2.83   5.04   5.67   2.19   1.90   0.94   1.67   3.00   37.36     1917   2.82   2.67   3.73   2.72   4.45   4.05   1.10   7.06   1.91   5.33   0.59   2.56   38.99      1918   3.11   2.30   3.19   3.08   1.99   1.94   2.64   1.56   9.19   0.99   1.20   3.21   34.40     1919   3.62   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   1.63   42.70     1920   2.72   5.88   3.72   5.68   5.26   5.78   1.56   2.32   1.90   1.64   5.46   3.89   45.81     1921   2.24   2.64   1.92   4.62   3.64   3.58   1.69   1.63   1.22   1.24   6.19   2.35   42.69     1922   1.41   2.64   4.35   2.48   5.34   8.05   2.63   4.75   3.66   1.97   0.84   3.01   41.13     1923   6.08   1.48   2.49   5.26   0.83   2.03   3.36   1.86   0.38   3.37   2.78   4.98   34.89     1925   3.97   1.55   5.21   2.48   2.07   4.59   3.54   1.40   3.45   4.03   3.66   5.20   41.15     1926   2.53   5.56   2.91   1.73   3.31   1.33   6.06   3.91   1.08   3.58   3.77   4.71   5.22   41.06     1922   1.66   2.66   1.56   4.68   3.08   5.56   1.14   2.45   4.47   2.88   1.85   2.61   3.76     1922   1.66   2.66   1.56   4.68   3.08   5.56   1.14   2.45   4.47   2.88   1.85   2.61   3.76     1925   3.97   1.55	1906	2.96	2.66	5.45	2.15	4.91	2.57	5.38	1.58	2.64	3.88	2.55	3.96	40.69
$ \begin{array}{c} 10000,  3.94  4.71  3.28  3.92  2.33  4.45  0.97  3.55  5.15  1.07  4.11  3.19  40.67 \\ 1910,  4.25  3.44  1.25  2.22  1.02  4.89  1.15  0.98  2.14  1.14  3.75  2.10  28.33 \\ 1911,  2.28  2.85  2.95  2.28  0.35  3.67  4.65  4.17  2.95  2.27  4.29  3.07  35.78 \\ 1912,  2.87  2.38  2.99  4.81  3.07  4.04  0.27  5.16  1.94  1.07  1.00  2.61  5.36  34.55 \\ 1914,  3.26  3.07  4.16  5.87  2.78  1.40  2.64  3.20  0.21  1.54  2.72  3.46  34.51 \\ 1914,  3.26  3.07  4.16  5.87  2.78  1.40  2.64  3.20  0.21  1.54  2.72  3.46  34.31 \\ 1915,  6.33  3.47  T.  1.86  1.64  1.39  8.85  5.63  0.69  2.82  2.14  3.94  38.76 \\ 1916,  1.23  5.18  3.20  4.51  2.83  5.04  5.67  2.19  1.90  0.94  1.67  3.00  37.36 \\ 1917,  2.82  2.66  4.11  2.33  4.25  1.08  4.65  1.10  7.06  1.91  5.33  0.59  2.56  3.8.99 \\ 1918,  3.11  2.30  3.19  3.08  1.99  1.94  2.64  1.56  9.19  0.99  1.20  3.21  34.40 \\ 1910,  3.62  2.66  4.11  2.33  4.25  1.08  4.63  5.07  5.83  2.13  5.36  1.63  42.70 \\ 1920,  2.72  5.88  3.72  5.08  5.26  5.78  1.56  2.32  1.90  1.04  5.46  3.89  42.81 \\ 1921,  1.41  2.64  4.35  2.48  5.48  8.05  2.63  4.75  3.66  0.96  1.91  0.93  1.48  3.01  41.13 \\ 1922,  2.14  2.64  4.35  2.48  5.24  8.05  2.63  4.75  3.66  0.96  0.96  1.93  3.94  3.94 \\ 1924,  3.27  2.61  2.04  3.79  2.81  1.07  2.04  6.86  6.96  0.96  0.96  1.93  3.48  34.92 \\ 1922,  1.60  2.66  1.13  3.31  1.33  3.69  3.52  3.44  7.05  2.24  5.46  4.35  2.22  2.48  3.49  3.54  1.40  3.45  4.03  3.56  5.20  1.73  3.31  1.33  6.06  3.91  1.08  3.55  4.09  3.96  2.91  1.73  3.31  1.33  6.06  3.91  1.08  3.55  4.09  3.96  2.91  1.73  3.31  1.33  6.06  3.91  1.08  3.55  4.09  3.96  2.92  3.50  3.99  3.52  3.99  3.52  3.99  3.52  3.99  3.52  3.99  3.52  3.99  $									1				1	
1911         2.28         2.85         2.95         2.28         0.35         3.67         4.65         4.17         2.95         2.27         4.29         3.07         35.78           1912         2.87         2.38         4.18         3.07         4.04         0.27         5.16         1.94         1.67         1.00         2.61         5.36         34.55         1.91         3.26         2.51         6.04         2.15         3.05         38.11         1.91         3.26         3.07         4.16         5.87         2.78         1.40         2.64         3.20         0.21         1.54         2.72         3.46         34.31         1.91         3.34         T.         1.86         1.64         1.39         8.85         5.63         0.69         2.82         2.14         3.94         38.76         1.91         3.94         3.73         3.22         4.51         2.83         5.04         5.67         2.19         1.90         0.94         1.67         3.04         3.94         3.94         3.94         2.64         1.91         5.33         0.59         2.56         3.89         1.92         1.94         2.64         1.96         9.19         0.99         1.92	1909	3.94	4.71	3.28	3.92	2.33	4.45	0.97		5.15	1.07	4.11	3.19	40.67
1912       2.88       2.38       4.18       3.07       4.04       0.27       5.16       1.94       1.67       1.00       2.61       5.36       34.55         1913       2.38       2.99       4.81       4.77       3.22       0.64       2.69       2.86       2.51       6.04       2.15       3.05       38.11         1915       6.33       3.07       4.16       5.87       2.78       1.40       2.64       3.20       0.21       1.54       2.72       3.46       34.31         1916       1.23       5.18       3.20       4.51       2.83       5.04       5.67       2.19       1.90       0.94       1.67       3.03       37.36       197.70       1.00       0.94       1.67       3.00       37.36       197.70       1.00       0.94       1.67       3.00       37.36       197.70       1.00       0.94       1.67       3.00       37.36       3.79       4.45       4.05       1.10       7.06       1.91       0.99       1.20       3.21       34.40       1910       3.62       2.66       4.11       2.33       4.25       1.08       4.63       5.07       5.83       2.13       5.36       1.63			3.44	1.25						2.14				28.33
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1912	2.87	2.38	4.18	3.07	4.04		5. 16	1.94	1.67	1.00	2.61	5.36	34.55
1915       6.33       3.47       T.       1.86       1.64       1.39       8.85       5.63       0.69       2.82       2.14       3.94       38.76         1916       1.23       5.18       3.20       4.51       2.83       5.04       5.67       2.19       1.90       0.94       1.67       3.00       37.36         1918       3.11       2.30       3.19       3.08       1.99       1.94       2.64       1.56       9.19       0.99       1.20       3.21       34.40         1919       3.62       2.66       4.11       2.33       4.25       1.08       4.63       5.07       5.83       2.13       5.36       1.63       42.70         1920       2.72       5.88       3.72       5.68       5.26       5.78       1.56       2.32       1.90       0.99       1.20       3.21       34.40         1920       2.72       5.88       3.72       5.68       5.26       5.78       1.56       2.32       1.90       1.94       2.64       1.64       5.46       3.89       45.81         1921       2.24       2.64       1.92       4.62       3.64       3.58       11.59		2.38		4.81	4.77	3.22				0.21				
1917 2.82 2.67 3.73 2.72 4.45 4.05 1.10 7.06 1.91 5.33 <b>0.59</b> 2.56 38.99 1918 3.11 2.30 3.19 3.08 1.99 1.94 2.64 1.56 9.19 0.99 1.20 3.21 34.40 1919 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42.70 1920 2.72 5.88 3.72 5.68 5.26 5.78 1.56 2.32 1.90 1.64 5.46 5.46 3.89 45.81 1921 2.24 2.64 1.92 4.62 3.64 3.58 11.69 1.63 1.22 1.90 1.64 5.46 1.92 2.35 42.96 1922 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41.13 1923 6.08 1.18 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34.89 1924 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34.92 1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.55 3.06 5.20 41.15 1926 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 3.57 3.96 6.20 41.15 1926 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 3.57 3.96 4.03 1927 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.22 41.06 1928 1.66 2.66 1.56 4.68 3.08 5.56 1.14 2.45 4.47 2.88 1.85 2.61 37.60 1920 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.2 2.20 5.23 3.07 4.43 3.71 1930 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.04 3.04 3.36 3.71 3.37 41.05 M.18 *3.51 3.31 3.69 3.52 3.24 3.06 3.50 3.74 3.04 3.36 3.71 3.37 41.05 M.18 *3.51 3.31 3.69 3.52 3.24 3.06 3.50 3.74 3.04 3.36 3.71 3.37 41.05	1915	6.33	3.47		1.86	1.64	1.39	8.85	5.63	0.69	2.82	2.14	3.94	38.76
1910 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42.70 1920 2.72 5.88 3.72 5.68 5.26 5.78 1.56 2.32 1.90 1.64 5.46 3.89 45.81 1921 2.24 2.64 1.92 4.62 3.64 3.58 11.69 1.63 1.22 1.90 1.64 5.46 3.89 45.81 1922 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41.13 1923 6.08 1.18 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34.89 1924 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34.92 1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41.15 1926 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 4.03 1922 1.66 2.66 1.56 4.68 3.08 5.56 1.14 2.45 4.47 2.88 1.85 2.61 37.60 1928 1.66 2.66 1.56 4.68 3.08 5.56 1.14 2.45 4.47 2.88 1.85 2.61 37.60 1929 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.76 2.38 3.07 4.43 3.70 1930 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.00 3.00 0.20 5.83 4.09 2.99 35.29 1.38 *3.51 3.31 3.69 3.52 3.24 3.06 3.50 3.74 3.04 3.36 3.71 3.37 41.05												0.59		38.99
1920 2.72 5.88 3.72 5.68 5.26 5.78 1.56 2.32 1.90 1.64 5.46 3.89 45.81 1921 2.24 2.64 1.92 4.62 3.64 3.58 11.69 1.63 1.22 1.24 6.19 2.35 42.96 1922 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41.13 1923 6.08 1.48 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34.89 1924 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34.89 1924 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34.89 1925 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41.15 1926 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40.03 1927 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.22 41.06 1928 1.66 2.66 1.56 4.68 3.08 5.56 1.14 2.45 4.47 2.88 1.85 2.61 37.60 1929 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.40 2.38 3.07 4.43 37.10 1930 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.20 5.83 4.09 2.99 35.29		3.11			3.08						0.99			
1922 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41.13 1923 6.08 1.48 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34.89 1924 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34.92 1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41.15 1926 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40.03 1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.22 41.06 1928 1.66 2.66 1.56 4.68 3.08 5.56 1.14 2.45 4.47 2.88 1.85 2.61 37.60 1920 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.46 2.38 3.07 4.43 37.19 1930 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.20 5.83 4.09 2.99 35.29	1920.	2.72	5.88	3.72	5.68	5.26	5.78	1.56	2.32	1.90	1.64	5.46	3.89	45.81
1923 6.08 1.48 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34.89 1924 3.27 2.61 2.04 5.88 1 1.07 2.04 6.86 6.96 0.96 0.96 1.93 1.48 34.99 1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41.15 1926 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40.03 1927 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.22 41.05 1928 1.66 2.66 1.56 4.68 3.08 5.56 1.14 2.45 4.47 2.88 1.85 2.61 37.60 1929 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.96 2.38 3.07 4.43 37.19 1930 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.20 5.83 4.09 2.99 35.29   M'ns *3.51 3.31 3.69 3.52 3.24 3.06 3.50 3.74 3.04 3.36 3.71 3.37 41.05						5.34	8.05			3.66			2.35	41.13
1925.     3.97     1.55     5.21     2.48     2.07     4.59     3.54     1.40     3.45     4.03     3.66     5.20     41.15       1926.     2.53     5.56     2.91     1.73     3.31     1.33     6.06     3.91     1.08     3.58     4.97     3.96     40.03       1927.     2.67     3.28     1.19     1.36     2.50     2.43     4.77     6.73     2.43     3.77     4.71     5.22     41.06       1928.     1.66     2.66     1.56     4.68     3.08     5.56     1.14     2.45     4.47     2.58     1.85     2.61     37.60       1920.     3.82     3.78     2.80     7.52     2.82     2.30     1.35     2.22     0.40     2.38     3.07     4.43     37.60       1930.     2.77     2.23     3.02     2.08     3.39     2.24     3.36     3.03     0.20     5.83     4.09     2.99     35.29       M'18     *3.51     3.31     3.69     3.52     3.24     3.06     3.50     3.74     3.04     3.36     3.71     3.37     41.05	1923.	6.08	1.48	2.49	5.26	0.83	2.03	3.36		0.38	3.37	2.78	4.98	34.89
1926       2,53       5.56       2.91       1.73       3.31       1.33       6.06       3.91       1.08       3.58       4.07       3.96       40.03         1927       2.67       3.28       1.19       1.36       2.50       2.43       4.77       6.73       2.43       3.77       2.88       1.52       2.41.06         1928       1.60       2.66       1.56       4.68       3.08       5.56       1.14       2.45       4.47       2.88       1.52       2.61       37.60         1929       3.82       3.78       2.80       7.52       2.82       2.30       1.35       2.22       0.46       2.38       3.07       4.43       37.19         1930       2.77       2.23       3.02       2.08       3.39       2.24       3.36       3.03       0.20       5.83       4.09       2.99       35.29         M'ns       *3.51       3.31       3.69       3.52       3.24       3.06       3.50       3.74       3.04       3.36       3.71       3.37       41.05	1924.	3.27			2.48			3.54			4.03	3.66		
1928 1,60 2,66 1,56 4,68 3,08 5,56 1,14 2,45 4,47 2,88 1,85 2,61 37,60 1929 3,82 3,78 2,80 7,52 2,82 2,30 1,35 2,22 0,46 2,38 3,07 4,43 37,10 1930 2,77 2,23 3,02 2,08 3,39 2,24 3,36 3,03 0,20 5,83 4,09 2,99 35,29 M'ns *3,51 3,31 3,69 3,52 3,24 3,06 3,50 3,74 3,04 3,36 3,71 3,37 41,05	1926.	. 2,53	5.56	2.91	1.73	3.31	1.33	6.06	3.91	1.08	3.58	4.07	3.96	40.03
1920 3.82 3.78 2.86 7.52 2.82 2.30 1.35 2.22 0.40 2.38 3.07 4.43 37.19 1930 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.20 5.83 4.09 2.99 35.29 M'ns *3.51 3.31 3.69 3.52 3.24 3.06 3.50 3.74 3.04 3.36 3.71 3.37 41.05	1928.	. I. OO	2,66	1.56	4.68	3.08	5.56	1.14	2.45	4.47	2.88	1.85	2.61	37.60
M'ns *3.51 3.31 3.69 3.52 3.24 3.06 3.50 3.74 3.04 3.36 3.71 3.37 41.05				2.80		2,82								
M'ns   13.62   3.44   3.91   3.76   3.51   3.13   3.57   3.96   3.30   3.48   3.93   3.69   43.30		1	-	-	-	-	-	-		-	<u> </u>			
	M'ns	†3.62	3.44							3.30	3.48		3.69	

NOTE.—Bold-faced figures indicate greatest and least monthly and annual amounts. \*Computed from the Weather Bureau records of 60 years.

 $<sup>\</sup>dagger$  Computed from the 113-year record, the data of years prior to 1871 being furnished by Mr. I. Y. Chubbuck, of Roxbury.

### SEASONAL SNOWFALL

	SEA	MINO	T PM	JWEE	TIL				
Years.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Season.
1871-2	0 1	T.	12.3	3.4	11.3	17.3	0	0	1 44.3
1872-3	0	0.3	23.7	3.4	8.3	5.2	T.	T.	49· I
1873-4	0	7.5 T.	13.7	20.3	22.7	3.9	28.3	0	96.4
1874-5	0		5.7	10.4	0.3	27.3	6.3 T.	0	50.0 10.0
1875-6	0	T.	I.I	0.5	5.4	3.0	<u>T</u> .	0	
1876-7	O	0.3 T.	9.0	17.5	T.	15.5 T.	T.	0	42.3
1877-8 1878-9	Т.	0.3	0.8	14.3	12.6	7.8	0	, 0	27.7
1879-0	0	6.0	9.8	3.2	11.4	15.0	4.0	0	43·4 45·4
1880-1	ő	0.8	19.2	20.5	9.0	3.1	4.2	o	56.8
1881-2	0	1.5	T.	15.4	17.9	5.6	0	0	40.4
1882-3	0	10.0	6.0	9.6	9.0	4.3	T	0	38.9
1883-4	0	Т.	24.4	11.9	12.5	7.7	9.5 <b>T.</b>	0	66.0
1884-5	0.5	4.8	2.3	3.9	3.3	9.5	Т.	0	24.3
1885-6 1886-7	0	0.5 T.	5.5 18.5	21·5 16·0	4.0 12.0	4.5		0	36.0
1887-8	0	Ť.	6.5	13.1	9.6	11.5	15.0 T.	T.	73.0 41.2
1888-g	o		6.5 T.	4.5	7.5	2.2	0	0	19.0
1880-0	0	4.8 T.	4.0	8.5	6.3	20.3	o	o	39.1
1800-1	0	T.	14.5 T.	14.8	13.8	16.2	. Т.	0	59.3
1891-2	Т.	0		12.0	11.5	20.0	0	O	43.5
1892-3	0	3.0	2.0	14.6	35.3	4.5 T.	7.9	0	67.3
1894-5	0	0.4	18.5	13.9	8.8	3.8	8.5	0	64.0
*00F-6	o	6.7 <b>T</b> .	13·5 5·2	9.5	9.5	14.5	0.2	0	38.9
1896–7	0	2.2	8.6	18.2	10.0		T.	ő	43.2
1807-8	0	8.1	7.8	16.3	11.5	3.3	2.2	0	51.9
1898-9	_0	17.8	7.7 T.	6.1	30.2	9.3	T.	_0	71.1
1899-0	Т.	0.1	T.	8.3	9.0	7.6 T.	0	T.	25.0
1900-1	0	0, I	0.8	7.8	8.8		T.	0	17.5
1901-2	Т.	T.	12.6	4.2	13.0	7.5	T.	0	44.1
T002=4	0	0	10.6	35.7	16.5	8.9	1.4	0	73.1
1904-5	T.	0	12.0	21.3	8.0	3.6	T.	0	44.9
1005-6	0	Т.	3.5	6.1	6.1	21.9	T.	0	37.6
1906-7	0	1.1	15.5	16.1	25.5	6.6	3.1	Т.	67.9
1907-8	0	T.	7.0	4.3	9.3	4.8	0.8	0	26.2 20.1
1909-0	T.	Ť.	3.5	11.9	12.6	3. I 0. 2	0	0	37.0
1910-1	0	1.4	8.2	0.7	19.5	3.1	7.7	0	40.6
1011-2	0	0.3	3.7	17.8	0.2	9.1	0.5	0	31.6
1912-3	0	o. 3 T.	9.2	0.3	7.7	0.5	1.4	0	19.4
1913-4	0.4	T.	0.9	10.3	20.6	5.2	2.0	0	39.4
1914-5	T.	T.	4.1	7.0	5.1	T.	6.1	0	22.3
1915-0	0	0.7	9.5	4.8	30.3	33.0	4.2 9.1	T.	79.2
1017-8	0	2.2	7.0	13.8	5.7	12.8	4.2	0	45.7
1918-9	0	T.	8.4	4.1	6.2	2.4	0	0	21.1
1010-0	0	0.2	2.9	24.8	32.5	II.O	2.0	T.	73.4
1920-1	0	1.8	5.5	3.6	23.2	T.	T.	0	34.1
1921-2	0	1.6	4.4	28.0	15.5	10.1	3.3 T.	0	37.6 68.5
1922-3	0	0.9 T.	3.0	8.5	14.3	10.6	3.0	0	32.4
1924-5	o	0, 5	0, 2	20.7	T.	7.4 T.	T.		21.4
1925-6	Т.	Т.	0.5	7.4	27.6	2.8	T.	0	38.3
1926-7	0	Т.	24. 2 T	16, 1	19.1	0.6	0, 2	0	60, 2
1927-8	T.	0.5		5. I	8.7	6.5	T.	0	20.8
1928-9	1.	I.4 3.0	4.6	13.5	9.5	0.6	0.6 T.	0	45.5
1929-0	T.	0.1	7.7	7.7	9.5	0.0			31.4
-		_							
Means,	T.	1.6	8.1	11.7	12.5	7.6	2.3	T.	43.8
					1.0		-		

### EXTREMES OF PRECIPITATION AND WIND.

		owfall '1-1930			ecipitati 1871-1930		Wind. 1871-1930 Corrected to 3-cup values.					
Month.	Great- est in 24 hours	Year.	Day.	Great- estin24 hours.	Year.	Day.	High- est ve- locity.	Di- rec- tion.	Year.	Day		
			1		00		1		1 -006			
January		1897	28	3.25	1881	21-22	52	ne.	1886	9		
February	16.0	1921	20	4.45	1886	12	49	e.	1880	3		
March	12,0	1892	18	3.04	1877	26-27	58	S.	1877	9		
April		1917	9	3.19	1921	30	49	ne.	1891	3		
May					1920	21-22	40	e.	1893	Ă		
June				5. 35	1875	9-10	34	e.	1903	12		
July					1921	9 10	49	sw.	1879	16 =		
Anguet					1879	18-19	40	- 00	1893	1629 -		
August				4.99			4973	S.		26. 7-1		
September					1924	9-10	-44 14	n. S.				
October		1884	31	4.92	1895	12-13	44	ne.	1890	19		
November		1898	27	5.43	1876	20-21	53	w.	1875	29		
December	12.3	1909	26	2.87	1888	17-18	49	e.	1900	5		

MONTHLY	AND	ANNUAL	MEAN	TEMPER.	ATURES.

		MON.	THLI	AND	MMI	MUAL	ME	IN IE	MIFE.	MAIU	RES.		
Year	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	An'l.
1871.1	26.0	28.6	4T.5	47.0	57.9	65.9	70.8	71.7	59.3	54.0 [	36.6	27.9	48.9
1872.	27.4	28.1	26.0	46.6	59.4	68.9	75.6	73.0	64.5	51.8	40.6	23.2	48.8
1873.	25.1	26.3	33.9		56.8	67.3	72.9	69.8	62.8	53.5	33.4	32.0	48.2
1874.	30.5	27.0	34.4	45.0 38.8	55.4	66.0	72.6	68.0	64.4	53.2	41.6	31.3	48.6
1875.	20.1	22.3	31.4	42.6	57.9	66.7	72.1	71.0	60.6	50.2	35.0	29.6	46.6
1876.	30.7	27.4	33.4	43.9	54.6	68.8	74.0	70.2	59.9	48.2	41.4	22.2	47·I
1877.	24.8	34. 2	34.9	44.2	55.0	66.8	71.1	72.2	65.2	52.0	44.2	36.4	50.9
1878.	28.0	30.6	39.6	48.2	56.5	64.6	73.7	69.7	64.2	56.1	40.8	30.3	50.2
1879.	24.2	24.6	33.6	42.4	60.2	64.8	70.8	69.3	62.0	57.6	38.8	32.3	48.4
1880.	34.6	31.8	33.2	46.4	63.7	68.6	71.9	70.8	65.2	52.2	38.2	26.7	50.3
1881.	22.0	27.9	37.2	43.6	56.6	61.7	70.2	71.4	67.6	54.4	43.6	39.0	49.6
1882.	26.0	30 • 4	36.0	42.8	50.6		73.2	71.5	64.0	55·4 47·7	39.0	30.4	48.8
1883.	24.4	28.8	30.8	45.2	56-5	70.I	71.7	68.2	59.8		42.8	29.1	47.9
1884.	24.1	31.2	34.2	43.8	54.8	67.2	68.6	69.7	66.9	52.6	41.4	33.8	49.0
1885.	27.4	20.6	27.6	47.2	53.2	66.8	71.8	67.8	60.1	51.6	44.0	32.7	47.6
1886.	25.8	26.6	33.3	48.6	56.8	63.2	71.2	68.2	63. I 59.8	52.0	43.2	28.4	48.4
1887.	25.0	28.7	31.5	44.2	59.6	65.2 66.8	74.6 68.8	70.2		51.5	42.2	32.4	48.5
1888.	20.1	28+3 26.0	32.2	42.6	53.0	69.2	69.4	67.4	59.8	48.5	44.6	34.6	47·3 50·7
1889.	35.8	33.2	38.2	46.3	57.0	64.2	71.0	68.9	62.9	51.0	41.8	26.0	49.1
1891.	32.4 31.1	32.0	33.6	48.0	55.8	65.0	69.0	70.0	66.7	51.6	41.4	40.4	50.4
1892.	28.3	28.4	32.9	48.4	55.9	69.6	73.0	70.2	62.5	52.7	41.2	29.9	49.4
1893.	20.7	26.8	33.8	44.4	56.3	64.8	71.4	69.6	60.0	54.8	42.2	30.4	47.9
1894.	30.1	26.6	42.5	47.0	57.6	68.8	73.7	68.0	64.8	54.0	38.2	32.2	50.3
1895.	28.8	24.6	34.6	46.0	60.2	66.8	69.3	71.0	65.7	49.6	45.4	35.6	49.8
1896.	24.9	28.7	32.0	47.2	60.3	66.1	69.3	70.7	62.2	50.2	46.5	30.4	49.2
1897.	28.4	30.9	36.9	49.0	57.6	62.3	71.6	69.6	63.1	54 • 4	41.4	34.0	49.9
1898.	28.7	32.8	42.8	43.8	55.8	65.8	71.8	73.1	66.2	54.2	42.0	32.0	50.8
1899.	. 29.0	26.8	34.0	48.I	57.8	70.0	72.6	68.8	62.0	54.5	42.I	36.2	50.2
1900.	30.0	29.3	31.0	48.6	55.2	68.6	73.8	71.1	65.0	56.6	44.6	33.4	50.8
1901.	27.6	24.2	36.2	43.5	54.3	68.2	73.4 <b>67.8</b>	70.7	65.4	54.4	37.2	32.4	49.0
1902.	26.6	28.8	43.4	48.4	57.6	64.3 <b>59.8</b>		67.6	62.6	53.6	46.2	28.5	49.6
1903.	26.8	31.4	44.4	47.8	58.5 60.8	64.0	71.4	65.0	64.4	53.9	38.2	29.0	49.5
1904.	21.6	22.6	34.6	44.6		65.2	73.2	68.6	62.0	53.6	41.6	25.8	47.1
1905.	25.1	23.4	37.2	47.2	57.6 58.0	66.4	70.I	72.0	65.0		41.7	35.I 29. I	49.I 50.0
1906.	35.7	29.7	32.4	43.4	52.4	65.1	72.4	69.6	64.4	52.5 49.8	43.2	37.2	48.7
1907.	31.0	26.8	38.6	46.8	59.0	69.8	74.1	69.4	65.8	55.4	43.6		51.2
1909.		32.6	36.8	47.8	55.8	69.4	71.5	69.4	62.6	52.8	46.4	33.3	50.5
1910.		29.5	42.0	51.6	57.6	65.2	74.9	68.8	62.8	56.0	41.2	27.5	50.8
1911.		27.0	35.4	46.1	62.4	65.6	74.9 77.1	69.0	62.6	52.6	41.8	39.4	50.9
1912.		27.7	36.0	47.4	58.6	68.0	73.2	69.0	63.7	57.4	45.6	38.5	50.5
1913.	39.2	27.7	42.4	48.0	55.2	67.5	73.8	70.8	62.0	56.4	46.5	37.8	52.3
1914.	28.7	24.3	36.7	45.3	60.4	67.3	68.6	70.4	64.6	57.0	42.7	30.4	49.7
1915.	33.0	33.2	35.8	50.8	56.6	63.9	70.1	69.1	66.8	55-7	45.4	34.2	51.2
1916.	33.0	25.5	30.6	45.6	58.6	62.6	72.6	71.8	65.0	55.5	42.6	32.6	49.7
1917.		25.8	37.2	44.0	50.7	65.8	73.3	72.8	60.2	51.9	39.4	23.7	47.9
1918.		26.9	36.7	47.8	63.3	63.9	71.0	70.4	61.2	56.2	45.0	34.7	49.8
1919.		32.6	40.8	46.9	59.1	67.2	74.0	68.8	63.9	55.1	42.8	28.7	51.1
1920.		27.6	39.2 46.2	45.0 51.8	54.6	65.8	72.4	72.0	65.2	59.8	41.7	35.6	50.0
1921.		32.6			58.0	68.2	73.2	69.8		55.2	41.6	31.4	52.4
1922.		32.0	39.8	48.7	57.6	69.3	70.0	70.4	65.2	55.1	43.8	30.9	51.3
1923.		23.4	33.9	47.2	56.2	66.6	73.8	71.8	62.2	55·5 54.6	44.6	40.4 31.1	50.3
1924.	27. 2	38.0	37.4	49.8	57.4	70.9	72.4	71.3	64.0	49.3	43.6	33.6	51.7
1925.	31.0	27.8	34. 2	44.8	56.0	64.3	70.5	70.4	62.4	53.4	43.0	28, 6	49.0
1920.		32.7	41.6	48.3	55.2	65, 0	72. 2	67.4	65.0	57.9	44. 2	36.0	51.8
1928.	33.0	29.6	37.0	46.8	55.4	65.0	73.2	73.6	62.4	56.6	44.8	38.5	51.3
1929.		31.7	41.4	47. I	61.0	68.4	72.6	69.3	65.2	53.2	44.7	32.6	51.4
1930.		34.1	38.3	47.6	59.4	72.4	72.6	70.5	69.4	53.0	45.0	33.2	52.3
			-	-	-			-	-	-			
M'ns			36.3	46.4	57.3	66.5			1 63.6		42.5	32.3	49.8
	STOR	12 TZ	11 for	and fine	mon in	viiant.	high	act and	I LOTTO	at man	+h1- *		

NOTE.—Bold-faced figures indicate highest and lowest monthly means. EXTREMES OF TEMPERATURE, 1871 - 1930

EXILEMED OF THE		, , ,		1000		
Month	High- est.	Year.	Day.	Low- est.	Year.	Day
January February March April May June July August September October November December	68 83 89 97 100 104 98 102 90	1876 1930 1921 1927 1880 1925 1911 1917 1881 1881 1929 1912	1 20 21 20 26 6 4 1 7 1 2 6	-13 -11 -8 11 31 42 -56 47 34 25 -2 -14	1882 1896 1872 1874 1882 1884 1894 1914 1879 1875 1917	24 17 6 5 3 2 22 29 26 30 30

SUMMARY FOR YEAR 1930, BOSTON, MASS.

~~~															
1 1	Min. temp.	0° or below.	-	-	0	0	0	0	0	0	0	0	0	01	
	Ten ten	320 or below.	21	22	15	2	0	0	0	0	0	0	9	21	06
	ıy.	900 or above.	0	0	0	0	?	9	က	က	-	0	0	0	15
	Max. temp.	32° or below.	12	9	-	0	0	С	0	0	0	0	-	4	24
ys.		Dense fog.	2	òο	9	0	0	က	0	-	-	0	-	0	17
f da		Thunderstorms	0	0	7	0	7	က	00	9	_	0	0	0	23
Number of days.	more.	ro .ni f0.0) wong	1-	7	_	0	0	0	0	0	0	0	-	67	18
uml		orom 10.0)	11	12	11	9	11	11	00	∞	က	01	13	<u>∞</u>	112
Z	uoi	Cloudy.	17	9	-	9	12	σο σο	11	2	က	01	=	15	111
		Partly cloudy.	-	∞	12	13	=	11	9	18	18	 ∞	10	4	129
		Clear.		14	12 1			11	=		-6.	13	9 1	12	
	(	hour or over		1 1	0 1	0 11		0 1	-0	0	_	0 1	0	0 1	2 125
		Gales (33 miles											9		b.
	r.	Date.	10	16	14				14	- 23	16	- 25			-
'	Highest	Direction.	nw.	nw.	nw.	ŝ	nw.	W.	SW.	ó	SW.	n.	nw.	nw.	nw.
nd.	H	Velocity.	27 -	34 ,	26	26	36	56	20	20	20	30	26	26	36
Wind			nw.	nw.	W.	nw.	nw.	.v.	nw.	٧.	ν.	nw.	Λ.	nw.	nw.
	.moite	Prevailing direc		H	nw			SW		SW	SW.		SW		
	-9A	Average hourly.	7.4	8.1	9.0	8.6	7.7	7.3	6.4	6.0	6.4	7.4	7.4	7.9	7.4
10	ible.	Per cent of poss	38	19	64	73	09	67	59	69	73	52	52	46	61
Sun- shine	·s	Yumber of hour	113	181	236	293	271	306	274	294	275	195	155	130	2723
	1	Snowfall.	7.7	9.5	0.6	T.	0	0	0	0	0	T.	0.1	7.7	25.6
ion.		Date.	14-15	13-14	2-2	2 -9	15	11	17	15	00	15-16	16-17	26-27	Oct. 15-16
Precipitation.				07	60	1.06	90	92	1.16	06	13	35 1	72 1	37 2	35 1
recij	urs.	Greatest in 24 ho	0.77	-i	-		-:	0	-		0.	65		=	က်
A		Total.	2.77	2.23	3.02	2.08	3, 39	2.24	3.36	3,03	0.26	5.83	4.09	2.99	35, 29
e	Þ.	8 p. m.	69	62	62	53	62	71	89	69	64	17	70	17	99
Relative	humidity (per cent)	uooN	70	99	52	44	55	99	99	57	52	61	63	89	28
Rel	hun (per	8 а. т.	75	20	19	59	63	69	89	72	73	77	74	73	69
		Date.	17	17	က	24	50	-	15	12	30	21	53	16	Feb. 17
	es.	Lowest.		Ţ	19	- 62	45	45	28	53	49	34	16	7	
ire.	Extrem	Date.		- 02	10	14	7	ۍ	18	က	16	13	55	-	Aug.
Temperature.	Ex	Highest.	19	- 89	09	- 82	95	95	94	86	- 16	87	11	28	- 86 - 86
emp		1	-		က			4			4		0		
I		Monthly.	31.8	34.1	38.	47.6	59.4	72.	72.6	70.5	69.	53.0	45.	33.	52.
	Mean.	.muminiM	24.3	25.1	30.7	38.3	50.5	62.8	64.6	62.6	60.3	45.5	38.2	26.9	44.2
		Maximum.	39.3	43.1	45.9	56.9	68.3	81.9	80.7	78.4	78.5	60.5	51.9	39. 5	60.4
		Month.	January	February .	March	April	May	June	July	August	September	October	November	December.	Year

NORMAL AND COMPARATIVE DATA. [Based on records of 38 to 60 years.]

							~~-		~~		•					
		Min.	woled bus c	0	-	-	0	0	0 (	0	0	0 0	0 0	0 0	> ,	-   s
		Min. temp.	20 and below.	8	56	24	19	44 (	)	0	> 0	> 0	<b>&gt;</b>	7 0	21	901
		Max.	00 and above.	6	0	0	> 0	> 0	> 0	7 -	# C	7 -	- 0	> <	> 0	0 6
	sys.	Ma	.20 and below.	8	10	6 6	n (	> <	> <	> 0	0	-		> +	- r	30
	f da		annar halos.	r ,	2	27 0	7 0	۷ -	-	1 0	0	) <del>-</del>			٦ ،	15
	oer o		solat halos.	3 7	2 (	27 7	# G	, c	٧ -	-	, ,	> -	1 6	1 -	- ,-	20
	lumi		.won8	3 -	9 (	9 +	r -		0 0	- C	> <	> <	> <	> -	- LC	2 83
	ige r		Dense fog.	[ ,	۰,			-	· -			4 -	, 6	>	· -	133
	Average number of days.	•	Thunder-storms	,   -,	٠,	٦ ,	-	, 6	1 01	) 4	4		, ,	, ,	) 0	19
	A	10 10.0	Precipitation [0 more.]	-	7 5	OT 61	1 5	; =			2 2		, ,	, ,		-
ı		10 (	Cloudy.		2 5	19							, =			10
			Partly cloudy.	_		0 0					===	- 6:				115
		-	Clear.	-	n 9	2 2	10						=	10	. 6	10
		ction.	Prevailing dire	-		n w.				SW.	SW.					
	Wind.			-	v 0		2		4	8	က	-0			5	4 W.
		1 1	Hourly velocity		i :	12.	Ξ.	10.		<u>∞</u>	∞		10.0	11.	11.	10.
S.		.eldie	Per cent of poss	- 0	7. 4.0 20	57	58	59	63	64	63	62	56	48	48	57
oo kegi	Sunshine.		Possible.	995	200	371	401	452	455	461	429	374	343	295	284	4, 469
together together of to to years.	Sul	SII	Number of hou	142	170	213	229	269	290	296	269	232	197	141	136	2, 584
0100	Relative Humidity.		.m.q 8	2	99	89	89	69	71	7.5	77	7.5	72	Ľ	69	11
	elati		Noon.	63	19	58	57	61	59	99	61	62	58	65	65	61
	He		8 a. m.	72	71	20	69	70	7.5	71	9/	77	75	53	74	7.3
			Snowfall.	11.7	12.5	7.6	2.3	T.	0.0	0.0	0.0	0.0	Ę.	1.6	8.1	43.8
	tion.		Least monthly	0.92	0,45	T.	0.93	0.32	0.27	0.97	0.39	0.21	90.0	0.59	0, 75	28. 33
	Precipitation	рју.	Greatest montl	7.60	7.04	9.86	9.14	6.31	8, 05	11.69	10.68	10.93	8.84	11.03	8.49	65.53
			Monthly.	3.51	3,31	3.69	3, 52	3.24	3.06	3.50	3 74	3.04	3.36	3.71	3.37	41.05
-		lity.	idsits Tlisd	7.3	6.7	5.5	5.4	5.4	4.9	4.2	4.0	4.8	5,4	ŭ.	6.4	5.4
	ture.		Daily range.	15.7	15.7	15.5	16.2	17.0	17.5	16.8	15.8	16.0	15.9	14.5	11.3	15.9
	Temperature	12]	Mean. [Month	28.2	28.3	36.3	46.4	57.3	66.5	72.0	60.0	8. 3 2. 3	53.5	42.5	33.3	10.3
	T	[[[[	Minimum. [M	20.4	20.6	28.5	33.3	48.7	57.8	63.7	62.0	55.6	15.5	35.2	25.0	41.8
		[urəl	7] .muniixeld	35.1	36.3	44.0	54.5	65.7	75.3	80.5	77.8	71.6	61.4	10.7	39.3	57.7
			Month.	January	February	March	April	May	June	July	August	September	Oetober	November.	December	Year



### EXTREMES OF BAROMETRIC PRESSURE, 1871-1930

Sea Level Pressure

	PRESSURE									
MONTH	Maxi- mum	Year	Day	Mini- mum	Year	Day				
January February March April May June July August September October November December	30. 96 30. 72 30. 56 30. 57 30. 51	1920 1920 1904 1911 1903 1884 1892 1918 1888 1879 1887	31 1 5 12 2 15 7 19 7 3 30 1	28. 67 28. 86 28. 53 28. 86 29. 11 29. 26 29. 38 29. 26 29. 18 28. 97 28. 73 28. 80	1913 1916 1914 1907 1929 1923 1888 1924 1885 1925 1873 1915	3 26 1 9 17 27 12 26 23 25 18				

### MAXIMUM PRECIPITATION, 1901-1930

Maximum precipitation in 5 minutes	0.55 inch,	August 7, 1908.
Maximum precipitation in 10 minutes	0.91 inch,	August 7, 1908.
Maximum precipitation in 15 minutes	1.12 inches,	August 7, 1908.
Maximum precipitation in 30 minutes	1.45 inches,	August 7, 1908.
Maximum precipitation in 1 hour 1	. 80 inches, Aug	gust 24-25, 1901.
Maximum precipitation in 2 hours	. 2.45 inches,	July 1, 1915.

### FROSTS

Average date last killing frost in spring, April 14.

Latest date last killing frost in spring, May 16, 1882.

Average date first killing frost in autumn, October 26.

Earliest date first killing frost in autumn, September 26, 1879.

C30 ./6 :B74 93/

### U.S. DEPARTMENT OF AGRICULTURE WEATHER BUREAU

ANNUAL

METEOROLOGICAL

SUMMARY

WITH COMPARATIVE DATA

1931

BOSTON, MASS.

COMPILED BY

G. A. LOVELAND
SENIOR METEOROLOGIST

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### MISCELLANEOUS DATA FOR 1931.

Burometric Pressure (reduced to sea-level). Mean, 29.98 inches; highest, 30.64 inches, December 8; lowest, 28.87 inches, January 6.

Temperature. Greatest monthly range, 57°, May; least monthly range, 30°, March. Highest mean temperature of three consecutive days, 84°, July, 27–29; lowest mean temperature of three consecutive days, 17°, January 30 - February 1.

Precipitation. Longest period without precipitation, 11 days, Sept., 4-14. Longest period with precipitation, 9 days, Aug. 7-15. Greatest amount in 24 consecutive hours, 4.22 inches, June 9-10. Maximum amount in 5 minutes, 0.40 inch; May 21; 10 minutes, 0.51 inch; May 21; 15 minutes, 0.56 inch; May 21; 30 minutes, 0.56 inch; May 21; 1 hour, 0.88 inch; Aug. 27.

Frost. — Last killing frost in spring occurred on April 12. First killing frost in autumn occurred on November 7.

Snow. Greatest snowfall in 24 hours, 7.8 inches, January 30-31. Greatest depth of snow on the ground, 7.4 inches, Jan. 31. Last snow in spring occurred on April 8; first snow in Autumn occurred on November 6.

Thunderstorms. First thunderstorm, March 8; last thunderstorm, October 25.

MONTHLY AND A	ANNUAL	PRECIPITA	MON
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Year.	Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An'1
1818 1819 1820 1821 1822 1823 1824 1825 1826	2.64 0.70 3.12 1.41 1.29 3.00 3.95 2.79 2.55	3.49 2.27 4.25 4.42 2.31 4.57 5.99 3.43 1.48	4.05 6.21 4.90 2.53 2.02 7.72 1.81 4.70 3.81	6.15 3.74 0.45 4.90 2.99 2.21 4.72 0.37 1.50	5.96 3.06 5.08 1.84 0.78 6.40 1.43 1.36 <b>0.25</b>	3.47 3.56 3.42 2.79 3.54 0.93 1.60 4.77 3.85	4.03 2.02 4.19 2.35 4.3 <sup>2</sup> 5.74 0.88 1.24 2.90	0.45 4.38 5.15 1.58 1.20 1.98 3.68 5.62 12.10	7.81 5.29 2.43 4.73 2.15 1.95 6.43 2.66 3.03	2.11 1.40 5.39 2.29 2.53 3.95 1.01 3.21 3.80	1.91 1.22 3.00 3.12 2.58 1.92 1.72 0.81 2.31	0.86 1.63 2.50 1.93 1.46 6.93 2.50 4.38 3.56	42.99 35.48 44.18 36.89 27.20 47.30 35.02 35.34 41.14
1827 1828 1829 1830 1831 1832 1833 1834 1835 1836 1837	3.92 2.15 4.93 2.36 4.44 4.47 2.96 1.39 3.25 8.84 4.10	2.97 2.79 5.62 1.63 3.68 3.74 2.53 1.13 1.37 3.57 4.14	2.51 1.84 4.30 3.51 3.07 2.65 2.71 0.96 4.27 2.90 3.02	4.75 2.00 3.45 1.21 6.97 5.56 2.30 2.93 4.54 1.58 3.97	5·34 4.67 2.71 3·93 3.65 7·27 1.03 6.33 2.07 1.85 5·79	2.56 1.59 1.64 3.46 4.32 0.50 3.23 3.09 2.74 4.33 2.98	2.59 4.58 6.98 4.90 5.53 3.41 2.01 7.71 9.07 2.12 1.80	4.88 0.37 4.95 2.64 5.57 6.14 0.82 2.47 2.89 1.53 1.67	3.82 2.62 5.65 3.83 2.07 2.88 3.71 1.31 0.54 0.56	5.28 2.79 1.65 2.38 4.42 2.46 6.00 4.62 1.87 4.04 1.55	5.71 5.55 5.74 5.32 3.20 3.57 5.53 2.90 2.08 5.43 2.35	3.59 9.26 2.26 5.96 2.93 4.85 5.86 2.36 2.40 4.13 2.46	48.91 32.41 46.85 42.95 51.61 46.69 37.86 39.60 37.86 40.86
1838 1839 1840 1841 1842 1843 1844 1845 1846	3.07 0.98 3.12 6.00 0.80 2.20 3.68 4.58 3.12 3.28	2.77 3.11 2.57 1.60 3.20 6.08 2.42 4.25 2.95	3.09 1.18 4.55 3.50 3.35 6.17 6.00 3.83 2.73 4.77	2.62 7.73 4.60 8.82 3.50 3.88 0.20 1.23 1.23 2.20	3.32 4.27 2.23 1.90 2.90 1.60 2.72 2.82 2.02 2.03	2.55 2.25 2.78 1.95 5.30 4.61 1.40 2.05 2.25 4.09	1.20 3.32 2.93 2.10 1.82 2.15 2.17 3.28 2.51 2.65	4.26 5.70 4.00 4.20 4.44 6.88 2.62 1.80 6.45	9.87 2.00 2.12 2.86 3.25 0.98 3.53 2.23 1.30 6.64	5.02 2.50 4.48 3.80 0.80 4.82 5.80 4.00 1.35 1.05	3.95 1.71 11.63 4.55 4.45 3.40 3.15 10.25 4.17 5.12	0.80 6.35 4.15 5.77 5.30 3.92 3.85 5.98 4.52 3.95	42.52 41.10 49.16 47.05 39.11 46.69 37.54 46.32 29.95 46.93
1848 1849 1850 1851 1852 1853 1854 1855 1856 1857	2.30 0.35 4.59 1.30 4.85 2.44 2.91 7.22 5.32 5.36	3.90 1.15 2.52 4.20 2.85 5.30 4.87 4.67 0.80 2.45	4.05 7.35 5.32 3.88 4.45 2.27 2.84 1.18 1.33 3.09	1.40 0.90 4.82 9.37 10.18 3.78 6.63 4.28 4.37 10.83	6.30 3.10 6.63 3.31 1.95 5.63 4.33 1.20 7.10 5.57	1.73 1.45 2.77 1.80 2.35 0.30 2.47 3.09 2.90 2.02	1.35 0.85 2.70 3.09 3.28 3.64 3.70 4.15 4.02 5.53	3.10 6.25 5.30 1.27 7.63 9 40 0.59 1.46 11.11	3.55 1.25 7.15 3.50 1.65 3.80 3.86 1.13 4.90 2.56	5.10 8.10 2.10 4.43 2.19 3.92 2.08 4.61 2.70 4.50	2.25 5.50 3.32 5.51 3.47 4.43 6.80 5.27 3.33 2.52	5.95 4.05 6.76 2.65 3.09 3.95 4.64 5.93 4.28 5.26	40.98 40.30 53.98 44.31 47.94 48.86 45.71 44.19 52.16 50.87

### MONTHLY AND ANNUAL PRECIPITATION-Continued.

	Ni U	NTH.	LI A		INRU							. (	
Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	An'l.
I <sub>858</sub>	3.28 5.93	2.30	7.64	5.18 3.36	3.89	8.09 7.89 8.01	4.56 1.58 5.90	7.03 4.72 4.30	5.02 4.40 7.35	3.03	3.35 3.75 5.37	4.73 6.47 5.86	52.67 56.70 51.47
1860	6.04	3.55	7.45	5.89	2.35	3.64	2.76	6.04	1.77	2.66	4.90	2.35	50.66
1862	8.30	3.29	4.70	1.97	2.70	6.78	7·33 12.38	4.20 5.64	5.61 3.12	4.85	8.32 6.48	3.01 6.34	67.72
1863	4.51 3.57	4.51	6.42	9.05	3.31	2.56 1.47	1.90	4.:7	2.60	4.50	4.00	5. 28	49.30
1865	4.47	5.08	4.83	2.57	6.90	2.83	4.26	I.42	0.62	6.21	4.46	4.18	47.83
1865	3.73 6.06	5.28 6.55	4.70 6.12	2.03 2.52	5.64	2.74	5.42	3.87	5.90	2.72 6.76	3·74 2.32	4.86 2.48	50.70 55.64
1868	6.09	1.88	5.04	6.94	10.38 6.85	3·79 4·44	1.10 3.30	7.53	11. <b>95</b> 5.18	1.78 6.71	5.3I 3.74	9.04	64.11 66.28
1869	8.16	7.03	\$.74 4.88	8.42	2.58	7.59	4.01	1.57	0.67	6.80	4.40	3.62	59.73
1871	0.92	2.63	4.55	3.79	4.34	5.55 4.84	3.22	3.05	6.04	5.88	3.56	3.38	45.06 50.23
1872	5.76	2.31 3.21	4.05 3.76	3.83	3.29 5.16	0.54	3.84	6.21	2.91	5.33	8.34	5.64	54.53
1874 -	4.32	3.41	1.60	7.97	3.71	3.94	3.47	6.67	3.12	1.39	2.85	2.14	43.52
1875 1876	3.68	3·74 4·54	5.04 7.19	4.92 3.61	3.76	7.25 1.72	3.93 5.86	3.50	3.84	1.66	11.03	0.75	48.96
1877	3.33	0.45	9.79	4.19	3.38	3.21	2.27	4.49	0.60	8.84	9.62	1.32	51.49
1878 1879	7.60	4.40	5.9I 3.90	6.14 6.58	0.97	2.28 6.24	4.5 <sup>9</sup> 3.09	7.66	3.47	6.76	8.94	6.76	65.53 44.57
1880	3.72	4.11	3.25	2.85	1.63	0.75	6.86	2.90	2.36	3.15	2.30	3.42	37.30 52.63
1881	7.21 3.68	4.89	9.86	2.50	6.05	7.79	2.96 3.91	1.23	10.93	2.29	3.73	2.65	43.82
1883	3.59	2.74	2.33	2.83	5.11	2.07	2.73	0.39	1.50	6.40	2.08	3.71	35.48
1884	6.27	5.74	4.86	4.76 3.30	3·31 4·26	3.70	1.44	7.64	0.31	3.17	3.03	2.09	49.18
1885 1886	5.33	7.04	3.20	1.70	3.08	1.34	1.81	3.64	2.73	3.27	3.59	3.66	42.14
1887		3.69	3.86	2.62	1.67	1.98	3.59	3.05	0.97	2.53	2.22	2.71	33.75
1885	2.26 4.II	2.36	3.32	3.07	5.20	2.69	5.80	6.53	6.77	3.58	4.97	4.38	45.89
1889		2.29	5.88	2.29	4.48	2.21	1.93	2.70	5.04	5.63	0.97	3.72	39.14
1891	4.39	3.66	3.94	1.71	1.50	3.06	3.73	1 3.87	2.29 I.90	5.56	2.35	3.58	39.70
1892 1893		6.22	3.91	0.93	5.15	3.05	2.56	6.46	1.59	2.94	1.83	5.16	37.02
1894	3.01	3-15	1.01	3.78	4.12	0.80	3.09	3.03	2.14	5.11	3.10	4.28	36.62
1895 1896	3.79	3.94	2.72 5.41	3.65	2.71	1.73	2.98	3.24	6.40	3.15	3.70	2.45 1.70	37.55
1897		2.12		3.17	4.00	4.46	4.22	3.95	2.38	0.41	6.19	3.92	40.77
1898.		4.81	1.82	6.39 1.29	4.33	1.60	4.42	6.38	1.93	7.17	5.32 2.51	2.19	49.86
1900.	4.20	6.83	4.60	1.90	5.07	1.85	2.69	2.46	4.62	3.41	4.17	2, 25	44.05
1901.		0.65	6.58	7.43	6.31	1.31	2.88	3.25		3.02	1.09	8.49	48.72
1902.				4.43	0.32	7.19	2.99	3.33	2.43	3.95	1.48	2.57	41.97
1904.	4.80	2.49		9.14	3.38	2.06	1.23	2.19		0.82	1.70	2.52	39.64
1905.			2. 25 5. 45	2.14	1.47	5.23	5.38	3.39 1.58		3.88	2.55	3.96	40.69
1907.				3.31	3.12	2.56		1.10		2.54	6.02	4.31	37.56
1908				1.70		1.08		4.35		3.70	0.74	2.47 3.19	30.07
1909.		3.44	1.25			4.89	1.15			1.14	3.75	2.10	28.33
1911.	. 2.28	2.85	2.95	2.28	0.35	3.67 0.27	4.65	4.17	2.95	2.27 I.00	4.29	3.07	28.33 35.78
1912.				3.07	3.22			2.86	2.51			3.05	34.55
1914.	. 3.26	3.07	4.16	5.87	2.78	1.40	2.64	3.20	0.21		2.72	3.46	34.31
1915.		3.47	T.	1.86		I.39 5.04		5.63				3.94	38.76
1917.		2.67	3.73								0.59	2.56	37·36 38·99
1918. 1919.	3.11					1.94				0.99	1.20 5.36		34.40
1920.	. 2.72	5.88	3.72	5.68	5.26	5-78	1.56	2.32	1.90	1.64	5.46	3.89	45.81
1921. 1922.						3.58 8.05	2.63				0.84	2. 35	42.96
1922.					0.83	2.03	3.36	1.86	0.38	3.37	2.78		34.89
1924.	. 3.27	7 2.61	2.04	3.79	2.81	1.07	2.04	6.86	6.96	0.06	1.93	1.48	34.92
1925. 1926.	3.97	7   1.55			2.07 3.3I	4·59 1·33		3.91		4.03	3.66		41.15
1927.	. 2.67	3.28	3   I.Ig	1.36	2.50	2.43	4.77	6.73	2.43		4.71	5.22	41.06
1928. 1929.	, I, 66	5   2.66 2   3.78		7.52		5.56	1.14			2.88	1.85		37.60 37.19
1930.			3 3.02	2.08		2.24	3.36		0.26	5.83	4.09	2.99	35. 29
1931.	4.00	4.21	4.66	3.12	4.51	9.13	2.43	4.45	1.67	2.18	0.82	2, 90	44.17
M'n M'n	s *3.50 5 †3.60												41.02 43.30
	Nor	E.—Bo	old-fac	ed fig	ures ir	dicat	e_grea	test a	nd le	ast me	onthly	and	annual

NOTE.—Bold-faced figures indicate greatest and least monthly and annual amounts. \*Computed from the Weather Bureau records of 61 years.

<sup>†</sup> Computed from the 114-year record, the data of years prior to 1871 being furnished by Mr. I. Y. Chubbuck, of Roxbury.

### SEASONAL SNOWFALL.

Years.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Season
1871-2	0	T.	12.3	3.4	11.3	17.3	0	0	44.3
1872-3	0	0.3	23.7		8.3	5.2	Т.	т.	49· 1 <b>96.4</b>
1874-5	0	7.5 T.	13.7 5.7	20.3	0.3	3·9 27·3	28.3	0	50.0
1875-6	0	T.	1.1	0.5	5.4	3.0	6.3 T.	ő	10.0
1876-7	0	0.3 T.	9.0	17.5	5 · 4 T.	15.5 T.	T.	0	42.3
1877-8	T.		o.S	14.3	12.6		0	0	27.7
1878-9 1879-0	0	6.0	9.8	18.2	11.9	7.8	4.0	0	43 • 4
1880-1	0	0.8	19.2	3.2	9.0	3.1	4.2	0	45·4 56.8
1881-2	0	1.5	T.	15.4	17.9	5.6	0	0	40.4
1882-3	0	10.0	6.0	9.6	9.0	4.3	T	0	38.9
1883-4	0	T.	24.4	11.9	12.5	7.7	9.5 T.	0	66.0
1884-5 1885-6	0.5	4.8	2.3	3.9	3.3	9·5 4·5	T.	0	21.3 36.0
1886-7	0	0.5 T.	5.5 18.5	16.0	12.0	11.5	15.0	0	73.0
1887-8	0	Т.	6.5 T.	13.1	9.6	12.0	T.	T.	41.2
1888-9	0	4.8 T.		4.5	7.5	2.2	0	0	19.0
1889-0 1890-1	0	T. T.	4.0	8.5	6.3	20.3	T.	0	39.1
1891-2	T.	0	14.5 T.	14.8	13.8	16.2	0	0	59.3
1892-3	0	3.0	2.0	14.6	35.3			0	43·5 67·3
1893-4	0	0.4	18.5	15.0	21.6	4.5 T.	7·9 8.5	0	64.0
1894-5	0	6.7 T.	13.5	13.9	8.8	3.8	0.5	0	47.2
1895-6	0		5.2 8.6	9.5 18.2	9.5	14.5	0.2 T.	0	38.9
1896-7	0	2.2 8.I	7.8	16.3	10.9	3·3 6·0	2.2	0	43·2 51·9
1898-9	0	17.8		6.1	30.2	9.3	T.	0	71.1
1899-0	T.	0.1	7.7 T.	8.3	9.0	7.6 T.	0	Т.	25.0
1900-1	0	0.1	0.8	7.8	8.8		0	0	17.5
1901-2	T.	T.	12.6	11.0	13.0	7.5	Т.	0	44.1
1902-3	0	0	10.6	35.7	14.7	8.9		0	42.0 73.1
1904-5	T.	0	12.0	21.3	8.0	3.6	T.4 T.	0	44.9
1005-6	0	T.	3.5	6.1	6.1	21.9	T.	0	37.6
1906-7	0	1.1	15.5	16.1	25.5	6.6	3.1	T.	67.9
1907-8	0	T.	7.0	4.3	9.3	4.8	0.8	0	26.2
1909-0	T.	T.	3.5	11.9	12.6	3.1	0	0	20.I 37.0
IQIO-I	0	1.4	8.2	0.7	19.5	3.1	7.7	0	40.6
1911-2	0	0.3	3.7	17.8	0.2	9.1	0.5	0	31.6
1912-3	0	o.3 T.	9.2	0.3	7.7	0.5	1.4	0	19.4
1913-4	0.4 T.	T.	0.9	7.0	20.6	5.2 T.	6.1	0	39.4
1015-6	0	0.2	6.7	4.8	30.3	33.0	4.2	0	22.3
1916-7	0	0.7	9.5	13.1	8.9	12.9	9.1	T.	54.2
1917-8	0	2.2	7.0	13.8	5.7	12.8	4.2	0	45-7
1918-9	0	T.	8.4	4.1	6.2	2.4	0	0	21.1
1919-0	0	0.2	2.9	24.8	32.5	11.0 T.	2.0 T.	T.	73 • 4
1921-2	0	1.6	5·5 4·4	2.7	23.2	10.1		0	34·I 37.6
1922-3	o	0.9	14.7	28.0	14.3	10.6	3:3 T.	o	68.5
1923-4	0	T.	3.0	8.5	10.4	7.4 T.	3.0	0	32.4
1924-5	0	o. 5 T.	0, 2	20.7	T.		T. T.	0	21.4
1925-6	Т.	Т.	0.5	7·4 16. I	27.6 19.1	2.8 0.6	0.2	0	38.3 60.2
1927-8	0	0.5	<sup>24. 2</sup> T	5. I	8.7	6.5	T.	0	20.8
1928-9	T.	1.4	4.6	13.5	21.4	4.0	0.6	o	45.5
1929-0	0	3.0	10.6	7.7	9.5	0.6	T.	0	31.4
1930-1	T.	0.1	7.7	11.7	14.0	7.3	T.	0	40.8
1931	0	Т.	1.4	•••••			• • • • • •	•••••	
Means	T.	1.6	8.1	11.7	12.6	7.6	2.3	T.	43.9

MONTHLY AND ANNUAL MEAN TEMPERATURES

	MONTHLI AND				TMI		161 61	714 7	121111	HILA	1010						
Year.	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	An'l.				
1871,	26.0	28.6	41.5	47.0	57.9	65.9	70.8	71.7	59.3	54.0	36.6	27.9	48.9				
1872	27.4	28.1	26.0	46.6	59.4	68.9	75.6	73.0	64.5	51.8	40.6	23.2	48.8				
1873	25.1	26.3	33.9	45.0 38.8	56.8	67.3	72.9	69.8	62.8	53 - 5	33.4	32.0	48.2				
1874	30.5	27.0	34.4	38.8	55.4	66.0	72.6	68.0	64.4	53.2	41.6	31.3	48.6				
1875	20.1	22.3	31.4	42.6	57.9	66.7	72.I	71.0	60.6	50.2	35.0	29.6	46.6				
1070	30.7	27.4	33.4	43.9	54.6	68.8	74.0	70.2	59.9	48.2	41.4	22.2	47.I				
1877	24.8	34. 2	34.9	44.2	55.0	66.8	71.1	72.2	65.2	52.0	44.2	36.4	50.9				
1878	28.0	30.6	39.6	48.2	56.5	64.6	73.7	69.7	64.2	56.1	40.8	30.3	50.2				
1879	24.2	24.6	33.6	42.4	60.2	64.8	70.8	69.3	62.0	57.6	38.8	32.3	48.4				
1880	34.6	31.8	33.2	46.4	63.7	68.6	71.9	70.8	65.2	52.2	38.2	26.7	50.3				
1881	22.0	27.9	37.2	43.6	56.6	61.7	70.2	71.4	67.6	54.4	43.6	39.0	49.6				
1882	26.0	30.4	36.0	42.8	50.6	66.8	73.2	71.5	6.1.0	55·4 47·7	39.0	30.4	48.8				
1883	24.4	28.8	30.8	45.2	56.5	70.1	71.7 68.6	68.2	59.8		42.8	29.1	47.9				
1884	24. I	20.6	34.2	43.8	54.8	67.2	71.8	69.7 67.8	60.1	52.6	41.4	33.8	49.0				
1885	27.4		27.6	47.2	53.2 56.8			68.2			44.0	32.7	47.6 48.4				
1000	25.8	26.6	33.3			63.2	71.2	67.6	63.1 59.8	52.0	43.2		48.5				
1887	25.0 20.1	28.7 28.3	31.5	44.2	59.6	65.2	74.6 68.8	70.2	59.8	51·5 47·8	43.8	32.4 34.6	47.3				
1888		26.0	38.2	47.8	60.3	69.2	69.4	67.4	62.8	48.5	44.6	38.0	50.7				
1889	35.8	33.2	31.9	46.3	57.0	64.2	71.0	68.9	62.9	51.0	41.8	26.0	49.1				
1891	3!.1	32.0	33.6	48.0	55.8	65.0	69.0	70.0	66.7	51.6	41.4	40.4	50.4				
1892	28.3	28.4	32.9	48.4	55.9	69.6	73.0	70.2	62.5	52.7	41.2	29.9	49.4				
1893	20.7	26.8	33.8	44.4	56.3	64.8	71.4	69.6	60.0	54.8	42.2	30.4	47.9				
1894	30.1	26.6	42.5	47.0	57.6	68.8	73.7	68.0	64.8	54.0	38.2	32.2	50.3				
1895	28.8	24.6	34.6	46.0	60.2	66.8	69.3	71.0	65.7	49.6	45.4	35.6	49.8				
1896	24.9	28.7	32.0	47.2	60.3	66.I	69.3	70.7	62.2	50.2	46.5	30.4	49.2				
1897	28.4	30.9	36.9	49.0	57.6	62.3	71.6	69.6	63.1	54.4	41.4	34.0	49.9				
1898	28.7	32.8	42.8	43.8	55.8	65.8	71.8	73.1	66.2	54.2	42.0	32.0	50.8				
1899	29.0	26.8	34.0	18.I	57.8	70.0	72.6	68.8	62.0	54.5	42.I	36.2	50.2				
1900	30.0	29.3	34.0	48.6	55.2	68.6	73.8	71.1	65.0	56.6	44.6	33.4	50.8				
1901	27.6	24.2	36.2	43.5	54.3	68.2	73.4	70.7	65.4	54 - 4	37.2	32.4	49.0				
1902	26.6	28.8	43.4	48.4	57.6	64·3 <b>59.8</b>	73·4 67.8	67.6	62.6	53.6	46.2	28.5	49.6				
1903	26.8	31.4	44.4	47.8	58.5		71.4	65.0	64.4	53.9	40.0	29.0	49.5				
1904	21.6	22.6	34.6	44.6	60.8	64.0	71.4	68.7	62.5	50.6	38.2	25.8	47.I				
1905	25·I	23.4	37.2	46.8	57.6	65.2	73.2	68.6	62.0	53.6	41.6	35.1	49.I				
1900	35.7	29.7	32.4	47.2	58.0	66.4	70.1	72.0	65.0	52.5	41.7	29. I	50.0				
1907	27.0	21.6	37.9	43.4	52.4	65.1	72.4	69.6	64.4	49.8	43.2	37.2	48.7				
1908		26.8	38.6	46.8	59.0	69.8	74.1	69.4	65.8	55-4	43.6	33.3	51.2				
1909	30.3	32.6	36.8	47.8	55.8	69.4	71.5	69.4	62.6	52.8	46.4		50.5				
1910		29.5	42.0	51.6	57.6	65.2	74.9 77.1	68.8	62.8	56.0	41.2	27.5					
1911		27.0	35.4	46. I	62.4	65.6		69.0	62.6	52.6	41.8	39.4	50.9				
1912	21.4	27.7	36.0	47.4	58.6	68.0	73.2	69.0	63.7	57.4	45.6	38.5	50.5				
1913	39.2	27.7	42.4	48.0	55.2	67.5	73.8 68.6	70.8	62.0	56.4	46.5	37.8	52.3				
1914	28.7	24.3	36.7	45·3 50·8	60.4	67.3		70.4	64.6	57.0	42.7	30.4	49.7				
1915	33.0	33.2	35.8		56.6 58.6	63.9	70.I 72.6	69.1	66.8	55.7	45.4	34.2	51.2				
1916	33.0	25.5 25.8	30.6	45.6	50.7	65.8		72.8	65.0	55·5 51·9		32.6	49.7				
1917	30.2	25.8	37.2	44.0		63.0	73.3	70.4	61.2	56.2	39.4	23.7	47.9				
1010	22.0	32.6	36.7 40.8	46.9	63.3	63.9	74.0	68.8	63.9	55. I	45.0	34·7 28·7	51.1				
1919		27.6	39.2		54.6	65.8	72.4	72.0	65.2	59.8	41.7	35.6	50.0				
1921	32. I	32.6	46.2	45.0 <b>51.8</b>	58.0	68.2	73.2	69.8	68.5	55.2	41.6	31.4	52.4				
1922	27.2	32.0	39.8	48.7	61.4	68.6	72.0	70.4	65.2	55.1	41.0	30.9	51.3				
1923	27.0	23.4	33.9	48.2	57.6	69.3	70.0	69.4	64.2	55.5	44.6	40.4	50.3				
1923	31.9	26.6	37.4	47.2	56.2	66.6	73.8	71.8	62.2	54.6	44.6	31.1	50.3				
1925	27. 2	38.0	43.0	49.8	57.4	70.9	72. 4	71.2	64.0	49.3	43.6	33.6	51.7				
1926	31.0	27.8	34. 2	44.8	56.0	64.3	70.5	70.4	62. 4	53.4	44. 2	28,6	49.0				
1927	30.6	32.7	41.6	48.3	55.2	65.0	72. 2	67.4	65.0	57.9	49.6	36.0	51.8				
1928	33.0	29.6	37.0	48.3	55.4	65.0	73. 2	67.4 73.6	62.4	56.6	44.8	38.5	51.3				
1929	29.0	31.7	41.4	47.1	61.0	68.4	72.6	69.3	65.2	53.2	44.7	32.6	51.4				
1930	31.8	34.1	38.3	17.6	59.4	72.4	72.6	70.5	69.4	53.0	45.0	33.2	52.3				
1931	30.6	30.6	39.3	50. 2	60.3	67.2	74.0	72. 2	66.9	58.5	49.4	36.6	52.3 53.0				
					-			1	-								
M'ns	28.2	28.3	36.3	46.4	57 - 3	66.5	72.0	69.9	63.6	53.6	42.6	32.4	49.8				
									1								
							1		1	1							
		1			1	20.0	No.					1	,				

Note.—Bold-faced figures indicate highest and lowest monthly means.

0

0 0 0 1 0

BOSTON. YEAR FOR SUMMARY

0° or below. 9 0 00 83 32° or below. က Max. 900 of above. 2 0 0 350 Of Delow. Number of days. 0 0 2 C ? 60 2 00 Dense fog. \_ 2 0 28 Thunderstorms. 2 -0 0 0 0 0 0 Snow (0.1 in. or more.) With precipitation (0.0). a 6 2 9 00 9 0 2 22 0 10 6 5 91 Cloudy. Partly cloudy. 2 6 7 6 Ť 15 16 15 126 Gales (33 miles 0 0 0 0 0 0 ber. 1, IV 9 က 26 Date. ghest. nw. 11.7 Direction. ne. ne. ne. n. Wind. <u>∞</u> 24 Velocity. Prevailing direction. nw. nW. SW. 2 3 7.4 locity. Average hourly -24 Per cent of possible. 57 89 63 99 65 65 41 59 Sun-shine 284 Aumber of hours. 0 7.3 1.4 Snowfall. E. T. Precipitation. 15-16 June 9-10 18 - 199 က 26 20 7 1-12 00 28 - 29Date. 9 5 -9 2-1,39 75 82 9 8 83 48 68 22 Greatest in 24 hours. o. 12 33 3 45 1 99 18 60 4.21 67 82 90 Total. o. Relative humidity (per cent). 8 p. m. 64 99 71 89 89 70 22 64 89 69 99 HOOM 9 3 47 61 99 62 59 8 a. m. 6.2 27 67 20 67 89 17 67 25 2 29 61 28 Feb. Date. Extremes 27 32 37 48 9 58 16 40 25 # Lowest. Temperature 13 20 29 28 July 28 Date. Highest. 6 28 55 94 97 84 78 61 97 6 iC Monthly. 30. 50. 36. 30. 39. 67. 66. 58. 49. 53. Mean. .ananiniM 23.1 23. 33. 66. 42. 45. 58 28 50. 29. 0 Maximum. 75. 79. 38. 38. 20 75 60. 81 August .... September December. November Year. February Month. fanuary October March.

	Minimum temp.	2   1   1   1   1   1   1   1   1   1
	35° of below	10
'nι	Minimum temp.	59 59 59 60 60 60 60 60 60 60 60 60 60 60 60 60
Average number of days	Dense fog Max. temp. 900	ω
er of		
dmi.	Thunderstorms	
ge m	Show (trace or	4   2
erag	Fain, . 01 or more	
A,	Cloudy	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	Partly cloudy	09 000000000000000000000000000000000000
	Clear	60 10 10 10 10 10 10 10 10 10 10 10 10 10
<del>©</del>	Tear	61 1886 1887 1883 1893 1893 1888 1888 1888 1889 1900
Wind (4-cup standard)	Direction highest	61 ne. e.e. e.e. s.x.x. s.x.x. s.x.x. ne. e.e. e.e. e.e. e.e. e.e. e.e.
Wind tp star	Highest relocity	19 * 0.04 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
(4-cu	Prevailing direc- noit	60 60 W.
	Average hourly	60 111.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
ine	Per cent	27 4 4 8 8 9 9 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Sunshine	ruon istoT	37 142 168 213 229 229 229 229 229 229 229 229 229 22
	.m.q 8	04 070 666 668 668 668 669 177 177 177 177 177 177 177 177 177 17
Relative humidity per cent	Noon-local time	65 66 66 66 66 66 67 67 68 68 68 68 68 68 68 68 68 68 68 68 68
Relg hum per	8 a. m.	4 6 7172 40 124 40 124 124 124 124 124 124 124 124 124 124
	Деят	60 1897 1921 1892 1917 1884 1898 1909
	Greatest snowfall in 24 hours	60 11.7 7 11.7 0 12.0 0 12.0 0 16.0 0
tion	Ilaiwons 922 and A	23.77.77.77.77.77.77.77.77.77.77.77.77.77
Precipitation	Lear	61 1886 1886 1875 1921 1875 1876 1876 1876 1876 1876
Ę.	42 ni testesti sinod	6. 04 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	Average total	61 61 61 61 61 61 61 61 61 61 61 61 61 6
	Геат	61 1882 1898 1874 1874 1874 1874 1874 1877 1877 187
	Absolute lowest	61 1 1 1 8 2 2 4 4 4 5 5 5 6 1 1 1 1 2 2 5 1 1 1 1 1 1 2 2 1 1 1 1 1
ure	Year	61 1876 1921 1927 1927 1917 1917 1917 1918 1931 1918
erati	Absolute highest	69 104 104 104 104 104 104
Temperature	Average	61 61 62 63 63 63 63 63 63 63 63 63 63
	Vliab 928197A muminim	50 60 60 60 60 60 60 60 60 60 6
	Vliab egareth mumixam	59 50 50 50 50 50 50 50 50 50 50
	Month	L'gth of record years. Jan April March June June June June June October October October Dec Year

\* Corrected to true velocity.

### EXTREMES OF BAROMETRIC PRESSURE, 1871-1931

Sea Level Pressure

	PRESSURE									
MONTH	Maxi- mum	Year	Day	Mini- mum	Year	Day				
January February March April May June July August September October November December	31.00 31.03 30.96 30.72 30.56 30.57 30.51 30.46 30.65 30.75 30.86 30.96	1920 1920 1904 1911 1903 1884 1892 1918 1888 1879 1887	31 1 5 12 2 15 7 19 7 3 30 1	28. 67 28. 86 28. 53 28. 86 29. 11 29. 26 29. 38 29. 26 29. 18 28. 97 28. 73 28. 80	1913 1916 1914 1907 1929 1923 1888 1924 1885 1925 1873 1915	3 26 1 9 17 27 12 26 23 25 18 14				

### MAXIMUM PRECIPITATION, 1901-1931

Maximum	precipitation in 5 minutes	0	.55 inch,	August 7, 1908.
Maximum	precipitation in 10 minutes	0	.91 inch,	August 7, 1908.
Maximum	precipitation in 15 minutes	1	.12 inches,	August 7, 1908.
Maximum	precipitation in 30 minutes	1	.45 inches.	August 7, 1908.
Maximum	precipitation in 1 hour	. 1.8	0 inches, Au	igust 24-25, 1901.
Marimum	procinitation in 2 hours		9 45 inches	July 1 1915.

#### FROSTS

Average date last killing frost in spring, April 14.

Latest date last killing frost in spring, May 16, 1882.

Average date first killing frost in autumn, October 26.

Earliest date first killing frost in autumn, September 26, 1879.

?30 .16 ;B74 937

# U.S DEPARTMENT OF AGRICULTURE WEATHER BUREAU THIRD FLOOR

# ANNUAL METEOROLOGICAL SUMMARY

WITH COMPARATIVE DATA

1937

BOSTON, MASS.

COMPILED BY
G. H. NOYES

Kirstein Busine Ulters

BOSTON, MASS. 1938

W. B. Boston-2-15-38-1200

23 97 2 0 0

က ಣ 0 0 0 0 0

21

0

0. or below.

32º of below.

900 or above.

320 of below,

0 0 0 0 0 1 0

0 0

9 2 0 0 0 36

August.

March. April. May

3

279

October

9

105

2

Min. temp.

Max. temp.

Ja Fe Ma Ar Ma Ju Ju Au Sei Oc No De

Number of days. Dense tog. က က 0 က က 2 0 Thunderstorms. 0 0 က က က 00 2 0 0 13 77 c 0 0 0 0 ಣ Snow (0.1 in. or more.) (0.01 in. or more). 5 9 6 13 23 -1 6 00 Ξ  $\infty$ 123 With precipitation Cloudy. 20 = 91 6 2 -1 33 2 = S 110 6 9  $\infty$ 2 Partly cloudy. 0 9 6 2 ð S 6 20 2 9 20 103 Clear. hour or over). 2 0 0 က 2 Ξ ber Gales (32 miles 00 5 6 91 15 5.5 9 0 61 50 28 S Date. 3 Highest ne. Direction. ne. ne. ė. ≱. Ė ŝ e. 35 BOSTON, MASS. Wind. 200 Velocity. 25 27 20 37 53 20 MU Prevailing direction. SW S.W. MS ¥. Υ. X Þ 44 ė B 'n Average hourly. 6 11.7 9.3 8.6 2 8.0 9.7 . . 0. ഹ -21 YEAR 1937. Percent of possible. 4 55 19 24 53 19 9 \_  $\infty$ 55 Sun-shine 163 236 208 244 309 62 141 20 2492 241 Number of hours. 2.0 1.9 80.00 Ţ. = 0 0 0 0 0 0 Snowfall. 0 Precipitation. Dec. 6-7 00 26-27 -22 58-59 7 9 -25 6 20 1 Date. SUMMARY FOR 2--9 6 1.48 87 35 9' 36 52 2.21 81 36 38 (ireatest in 24 hours. Ö ~; 0 0 :: က 5 93 1,31 34 52 17 4.97 69 95 99 69 67 Total. က် ō. ?; ကံ က် က် 5 Relative humidity (percent). 92 99 69 .m .q os: 7 **F9** 28 69 67 20 18 20 99 HOON 99 9 26 89 63 63 61 58 61 7 :30 я. ш. 15 22 1.7 92 7. 64 8.5 80 Feb. 21 = \_ 23 1 82 21 Date. Extremes. 16 0 15 釬 53 55 45 32 53 Lowest. 10 31 July 6 6 2  $\infty$ 20 အ 2 1 Temperature. Date. 95 88 99 20 66 99 66 7 Highest. 64 57 9 C 2 34. Monthly. 5 59. 99 73 74. 63. 44. 333 13.5 Mean. 64.7 mnunimim. 4 29. 38 8 66. 55 36. 26. 26. 28 37.4 00 Maximum. 5:2 68 85 70. 60 58 15 39. 81 51. September November December Year. February Month. January.

# COMPARATIVE DATA AND EXTREMES

	5081021, 2		-
	Minimum temp.	20 00000 mm m	
	Minimum temp.	59 226 224 119 4 4 8 0 0 0 0 0 0 0 0 0 110 110 110 110 110	
ry s	Max. temp. 90°	6 0000 % % 4 % H C C O O	
of da	Dense fog	88 TELESCITE 5	
ber o	Thunderstorms	20	
man	Show (trace or more)	# 10rmw000cmmx 3	
age :	Rain, . 01 or more	8 35377555 357 357	
Average number of days	Cloudy	63 113 123 123 123 123 123 123 123 123 12	
	Partly cloudy	8 exp5528 = e5ce 81	
	Clear	8 005 00 - 51 - 00   x1	
	Year	(60 1886 1886 1886 1887 1893 1893 1893 1893 1893 1893 1893 1893	
D.	Direction highest Tipoley	e e e e e e e e e e e e e e e e e e e	A The
* Wind	Tighest velocity	09 024-24-28-4-28-4-20-09-09-09-09-09-09-09-09-09-09-09-09-09	1
4+5	Prevailing direc- noit	60 8 W.	
	Average hourly velocity	00 111110000000000000000000000000000000	-
ine	Ретсепт	24	7
Sunshine	Total hours	42 170 170 170 231 231 232 289 289 289 289 289 289 196 1142 1142 1142	•
re ity nt	.m.q 8	04 07.0 66.0 66.0 66.0 77.7 77.7 77.7 77.7	
Relative humidity per cent	Noon-local time	41 14 14 14 14 14 14 14 14 14 14 14 14 1	0 000
N P P P P	8 a. m.	04 57.7 56.0 56.0 57.7 57.7 57.7 E7. E7. E7. E7. E7. E7. E7. E7. E7.	
	Year	1897 1921 1921 1932 1932 1938 1938 1938 1939	
g g	Greatest snowfall in 24 hours	65 14.7 17.0 12.0 12.0 0 0 0 0 0 12.0 12.0 12.0 16.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17	
tatio	Average snowfall	65 12. 22. 25. 50 0 0 0 13. 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Precipitation	Year	65 1881 1871 1877 1921 1920 1875 1921 1933 1895 1895 1937 1937	
	Greatest in 24 such	64 % % % % % % % % 4 % % % % % % % % % %	
	Zormal	00 00 00 00 00 00 00 00 00 00	
	Year .	62 1882 1834 1872 1874 1874 1874 1936 1936 1936 1936	
	tsawol atniosdA	62 1 1 1 2 2 3 4 4 4 2 3 1 1 1 1 1 1 2 2 3 4 4 4 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
ture	Year	62 1876 1930 1927 1927 1927 1917 1881 1917 1931 1931	
pera	teadaid atulosda	62 23 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	
Temperature	Normal	46 27.9 28.8 28.6 66.5 66.5 68.9 68.9 68.9 68.9 68.9 68.9 68.9 68.9	
	Tliab egatotA muminim	50 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20	
-	Average daily mumixam	50 35.8 36.6 54.7 75.2 77.8 80.1 77.8 80.1 77.8 80.1 80.1 61.6 61.6 61.6 61.6 61.6 61.6 61.6 6	
	Month	L'ath of record years. Jan. Jan. Feb. March. Mapril. May. June. July. August. Selv. October. October. Nov. Nov.	

Monthly and Annual Mean Temperatures

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept	Oct.	Nov.	Dec.	An'l.
Year  1840 1841 1842 1843 1844 1845 1846 1849 1851 1852 1853 1854 1855 1857 1858 1858	20.0 27.9 27.2 29.7 15.4 27.2 27.4 26.4 29.1 21.0 27.2 25.5 20.8 25.8	30.8 22.3 31.6 16.8 24.6 27.6 21.3 25.9 24.7 29.4 29.9 27.4 29.9 27.4 29.2 23.5 20.9 33.6 22.2 28.5	34.4 33.1 37.4 33.8 35.8 36.2 30.8 32.2 30.8 32.6 36.2 35.8 32.4 32.3 32.4 32.3 32.4 32.3 33.6 35.6	48.4 11.1 44.4 43.5 48.4 40.5 42.0 45.5 42.4 44.5 41.0 41.8 45.2 44.1 44.8 45.2	62	66.2 67.4 62.6 64.2 65.1 65.1 67.4 67.2 64.8 67.4 67.4 66.6 65.6 65.5 63.4 67.4 67.2	71.8 69.8 72.7 69.2 72.16 73.0 70.26 71.6 71.4 72.4 72.4 72.6 69.7	\$\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\finter{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}\firce{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\fracc}\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\	59. 9 62.3 58.2 60.6 64.0 66.7 61.0 58.6 66.0 61.0 61.1 62.1 61.2 61.5 61.4 62.0 61.8	49.5 44.6 47.9 47.5 51.2 47.7 49.2 51.4 52.5 51.5 51.5 51.5 51.5 51.5 51.5 66.5	36.0 36.4 34.3 34.3 34.3 34.3 34.3 44.1 36.2 44.1 36.2 41.0 34.8 38.8 39.6 41.2 40.0 38.7 41.3 35.3 42.0	24.7 30.0 23.5 26.9 27.0 25.6 27.4 34.4 28.9 25.2 22.9 26.4 24.6 24.0 33.2 28.0 24.4	47.4 46.4 46.6 48.9 47.7 47.7 47.3 47.3 47.3 47.4 47.4 47.4
1860 1861 1862 1863 1864 1865 1866 1867 1868 1869	27.7 23.0 22.9 28.8 25.0 16.8 22.4 18.6 22.0 27.9	25.8 32.6 22.7 25.1 27.4 24.2 27.9 32.2 20.1 28.9 24.5	35.4 35.0 32.7 27.2 34.4 37.9 32.8 30.8 32.3 26.6 30.0	41.2 44.3 44.0 44.2 42.1 49.6 47.8 44.7 42.1 43.6 46.6	56.1 54.5 58.3 59.1 56.4 58.1 53.4 53.1 50.8 54.0 57.6	65.4 65.9 63.6 65.3 67.8 73.1 66.1 66.9 64.2 64.2	69.7 68.1 71.9 69.3 73.6 73.4 74.4 69.2 73.6 70.8 72.9	69.5 67.6 70.1 73.2 73.3 71.1 65.5 70.4 69.7 67.6 71.8	59.7 62.0 60.1 60.3 60.1 66.7 62.0 60.0 59.9 62.3 62.7	50.8 54.2 53.0 51.9 47.8 48.2 49.6 50.9 46.4 48.7 53.3	42.0 43.4 40.0 42.3 39.6 40.2 41.6 38.7 36.5 36.4 41.1	24.4 26.6 39.6 27.6 25.7 27.1 29.6 27.2 23.1 25.6 28.4 32.6	47.3 48.0 48.3 47.0 48.0 47.6 47.6 46.6 45.3 46.6 49.5

These temperature records were made at the Astronomical Observatory of Harvard College, which is located on Concord Avenue and Bond Street, Cambridge, Mass, about three miles from the Weather Bureau station in Boston, Mass.

### MISCELLANEOUS DATA FOR 1937.

Barometric Pressure (reduced to sea level).—Mean, 30.00 inches; highest, 30.87 inches, January 25; lowest, 29.11 inches, February 14.

Temperature. — Greatest monthly range, 51°, May; least monthly range, 34°, December. Highest mean temperature of three consecutive days, 82°, July 7-9; lowest mean temperature of three consecutive days, 21°, February 1-4.

Precipitation. - Longest period without precipitation, 11 days, February 23-March 5; longest period with precipitation, 7 days, March 15-21. Greatest amount in 24 consecutive hours, 3.36 inches, December 6-7. Maximum amount in 5 minutes, 0.26 inch. October 20; 10 minutes, 0.34 inch, August 1; 15 minutes, 0.44 inch, August 1; 30 minutes, 0.54 inch, August 1; 1 hour, 0.81 inch, December 5.

Frost. -Last killing frost in spring, April 23. First killing

frost in autumn, October 15.

Snow.—Greatest snowfall in 24 hours, 2.2 inches, December 28. Greatest depth of snow on ground, 2.1 inches, December Last snow in spring occurred on April 23; first in autumn occurred on November 19.

Thunderstorms.—First thunderstorm occurred on May 7; last

thunderstorm occurred on September 4.

						4)	-						
Year	Jan.	Feb.	Mar	Apr.	Мау	June	July	Aug.	Sept.	Oct.	Nov	Dec	An'l
1871	26.0	28.6	41.5	47.0	57.9	65.9	70.8	71.7	59.3	54.0	36.6	27.9	48.9
1872.	27.4	28.1	26.0	46.6	59 • 4	68.9	75.6	73.0	64.5	51.8	40.6	23.2	48.8
1873	25.1	26.3	33.9	45.0	56.8	67.3 66.0	72.9	69.8	64.4	53·5 53·2	\$3.4 41.6	32.0	48.2
1874	30·5 20·1	27.0	34 • 4	28.8	55 4	66.7	72.1	71.0	60.6	50.2	35.0	31.3	46.6
1875 1876		22.3	31 • 4	43.9	57·9 54·6	66.7 68.8	74.0	70.2	59.9	48.2	41.4	22.2	47.9
1877	30.7	34.2	34.9	44.2	55.0	66.8	71.1	72.2	65.2	52.0	44.2	36.4	50.1
1877	28.0	30.6	39.6	48.2	56.5	64.6	73.7	69.7	64.2	56.1	40.8	30.3	50.2
1879	24.2	24.6	33.6	42.4	60.2	64.8	70.8	69.3	62.0	57.6	38.8	32.3	48.4
1880	34.6	31.8	33.2	46.4	63.7	68.6	71.8	70.8	65.2	52.2	38.2	26.7	50.3
1881.	22,0	27.9	37.2	43.6	56.6	61.7	70.2	71.4	67.6	54.4	43.6	39.0	49.6
1882.	26.0	30.4	36.0	42.8	50.6	66.8	73.2	71.5	64.0	55 • 4	39.0	30.4	48.8
1883	24.4	28.8	30.5	45.2	56.5	70.I	71.7 68.6	65.2	59.8	27.7	42.8	29.1	47.9
1884	24 · I	31.2	34.2	43.8	54.8	67.2 66.8	71.8	69.7	66.9 60.1	52.6	41.4	33.8	49·0 47·6
1885	27.4	20.6	27.6	47.2 48.6	53·2 56.8	63.2	71.2	68.2	63.1	52.0	43.2	28.4	48.4
1886	25.0	28.7	33.3	44.2	59.6	65.2	74.6	67.5	59.8	51.5	42.2	32.4	48.5
1888	20.1	28.3	32.2	42.6	53.0	66.8	68.8	70.2	59.8	51.5	43.8	34.6	47.3
1880.	35.8	26.0	38.2	47.8	60.3	69.2	69.4	67.4	62.8	48.5	44.6	38.0	50.7
1800.	32.4	33.2	34.9	46.3	57.0	64.2	71.0	68.9	62.9	51.0	41.8	26.0	49.1
1891	3I.I	32.0	33.6	48.0	55.8	65.0	69.0	70.0	66.7	51.6	41.4	40.4	50.4
1892.	28.3	28.4	32.9	48.4	55.9	69.6	73·0 71·4	70.2	62.5	52.7	41.2	29.9	49.4
1893	20.7	26.8	32.8	44.4	50.3	64.8	71-4	69.6	60.0	54.8	42.2	30.4	47.9
1894	30.1	26.6	42.5	47.0 46.0	57.6	68.8	73·7 69·3	68.0	64.8	54.0	38.2	32.2	50.3
1895	28.8	24.6	34.6	40.0	60.2	66.8	71.8	71.0	65.7	49.6	45.4	35.6	49.8
1807	24.9 28.4	28.7	32.0	47.2	60.3 57.6	62.3	71.6	69.6	63.1	54.4	41.4	3°. 4 34.0	49.2
1897	28.7	32.8	42.8	49.0	55.8	65.8	71.8	73.1	66.2	54.2	42.0	32.0	49.9
1899	29.0	26.8	34.0	43.8 48.1	57.8	70.0	72.6	63.8	62.0	54.5	42.I	36.2	50.2
1900	30.0	29,3	34.0	48.6	55.2	68.6	73.8	71.1	65.0	56.6	44.6	34.4	50.8
1901	27.6	24.2	36.2	43.5	54.3	68.2	73·4 67·8	70.7	65.4	54 • 4	37.2	32.4	49.0
1902	26.6	28.8	43.4	48.4	57.6	64.3	67.8	67.6	62.6	53.6	46.2	28.5	49.6
1903	26.8	31.4	44.4	47.8	58.5	59.8	71.4	65.0	64.4	53.9	40.0	29.0	49.4
1904	21.6	22.6	34.6	44.6	60.3	64.0	71.4	68.7	62.5	50.6	38.2	25.8	47.I
1905	25.1	23.4	37 - 2	46.8	57.6 58.0	65.2	73.2	68.6	62.0	53.6	41.6	35.1	49.1
1906	35.7	29.7	32.4	47.2	52.4	65. 1	70 · I 72 · 4	69.6	65.0 64.4	52.5 49.5	41.7	29.1	50.0 48.7
1907	27.0 3I.0	26.8	37.9	43.4	59.0	69.8	74. I	69.4	65.8	55.4	43.6	37 · 2	51.2
1909	30.3	32.6	36.8	47.8	55.8	69.4	71.5	69.4	62.6	52.8	46.4	30.8	50.5
1910	32.0	29.5	42.0	51.6	57.6	65.2	74.9	68.8	62.8	56.0	41.2	27.5	50.5 30.8
1911	31.8	27.0	35.4	46.1	62.4	65.6	74·9 77·1	69.0	62.6	52.6	41.8	39.4	50.9
1912	21.4	27.7	35.0	47 - 4	58.6	68.0	73.2	69.0	63.7	57 - 4	45.6	38.5	50.5
1913	39.2	27.7	42.4	48.0	55.2	67.5	73.8 68.6	70.8	62.0	56.4	46.5	37.8	52.3
1914	28.7	24.3	36.7	45·3 50.8	60.4	67.3		70.4	64.6	57.0	42.7	30.4	49.7
1915	33.0	33.2	35.8	50.8	56.6 58.6	63.9	70.1	69.1	66.8	55.7	45.4	34.2	51.2
1916	33.0	25.5 25.8	30.6	45.6 44.0	50.7	65.8	73.3	72.8	65.0	55.5	39.4	32.6	49.7
1917.	21.0	26.9	36.7	47.8	63.3	63.9	71.0	70.4	61.2	56.2	45.0	23.7 34 7	47.9
1919	33.2	32.6	40.8	46.9	59.1	67.2	74.0	68.8	63.9	55.1	42.8	28.7	51.1
1920	21.0	27.6	39.2	45.0	54.6	65.8	72.4	72.0	65.2	59.8	41.7	35.6	50.0
1921	32.1	32.6	46.2	51.8	58.0	68.2	73.2	69.8	68.5	55.2	41.6	31.4	52.4
1922	27.2	32.0	39.8	48.7	61.4	68.6	72.0	70.4	65.2	55.1	43.8	30.9	51.3
1923	27.0	23.4	33.9	48.2	57.6	69.3	70.0	69.4	64.2	55.5	44.6	40.4	50.3
1924	31.9	26.6	37 - 4	47.2	56.2	00.6	73.8	71.8	62.2	54.6	44.6	31.1	50.3
1925	27.2	33.0	43'0	49.8	57·4 56.0	70.9	72.4	71.2	61.0	49.3	43.6	33.6	51.7
1926	30.6	27.8 32.6	34.2	44.8	55.2	64.3	70.5	70.4 67.4	52.4 65.0	53 • 4	44.2	28.6 36.0	49.0
1927	33.0	29.6	37.0	46.8	55.4	65.0	73.2	73.6	62.4	57·9 56·6	44.8	38.5	51.3
1929	29.0	31.7	41.4	47.1	55·4 61.0	68.4	72.6	73.6	65.2	53.2	44.7	32.6	51.4
1930	31.8	34.1	38.3	47.6	59.4	72.4	72.6	70.5	69.4	53.0	45.0	33.2	52.3
1931	30.6	30.6	39.3	50.2	60.3	67.2	74.0	72.2	66.9	53.0 58.5	49.4	36.6	53.0
1932	38.8	30.6	35.6	47.4	60.2	66.4	72.8	74.0	65.2	57·I	42.8	38.1	52.4
1933.	37.8	33.7	35.7	46.5	61.6	69.5	70.8	71.8	65.8	52.7	38.3	26.8	50.9
1934	29.6	17.5	35.1	48.0	60.6	66.9	73.2	67.3	64.6	49.6	45.6	28.4	48.9
1935	23.2 28.2	27.8 22.8	38.4	45.2	55.5	65.5	72.6	70.7	61.4	53.8	45.4	27.1	48.9
1936	37.4	33.2	34.1	45.2	60.6 59.1	66.4	71.1	69.7 74.6	63.0	54.4	39·5 44·0	35.0 31.2	49·7 51.2
	28.6									-			-
M'ns	28.0	28.5	36.4	46.5	57.5	66.5	72.1	70.1	63.7	53.6	42.3	32.2	49.8
				-	-								

Note.—Bold-face figures indicate highest and lowest monthly means.

BOSTON, MASS. MAXIMUM TEMPERATURE FOR EACH DAY OF YEAR RECORD EXTENDS FROM MARCH 1, 1872 TO DECEMBER 31, 1937

December	Year Max. Year Date	927 67 1908 1809 1927 67 1908 1809 1929 65 1932 1809 1929 65 1932 1809 1929 65 1932 1809 1929 65 1932 1809 1929 1929 65 1932 1809 1929 1931 65 1932 1809 1932 65 1932 1809 1932 65 1932 1809 1933 65 1932 1809 1933 65 1932 1809 1933 65 1932 1809 1933 65 1932 1809 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1933 65 1
November	Max.	8253234 825426666666777333284 625426666666777333284 63542666666777733284 635426666677777777777777777777777777777777
October	Max. Year	8
September	Max. Year	182
August	Year	1917 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
-	Year Max.	9887 9911 9911 9911 9911 9911 9911 9911
July	Max.	885425588855588888888888888888888888888
June	Max. Year	1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875   1875
May	Year	1836 1936 1937 1938 1938 1938 1938 1938 1938 1938 1938
-	Year Max.	9918 8892 8892 8892 8892 8892 8892 8892
April	Max. Y	\$\$\$2\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$
March	Max. Year	100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100
nary	Year	1916 1916 1933 1933 1933 1933 1935 1936 1930 1930 1930 1930 1930 1930 1930 1930
February	ur Max.	## ## ## ## ## ## ## ## ## ## ## ## ##
January	Max. Year	70 1830 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
	Date	1.00 6 9 6 9 6 9 6 9 6 9 6 9 6 9 6 9 6 9 6

\* Ilas occurred on previous dates also.

BOSTON, MASS.

MINIMUM TEMPERATURE FOR EACH DAY OF YEAR
RECORD EXTENDS FROM MARCH 1, 1872 TO DECEMBER 31, 1937

	Date	-	CQ	es:	4:	5	9		8	6	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	. 22	.23	.24	.25	. 26	.27	.28	.29	30	31
per	Year			Ť		-	-		÷	÷	÷		-	÷	Ť	÷	÷	÷	÷	-		÷	_	Ť	÷	÷	Ť	÷			1933	
December	Min.	0	4	0		7	6	7	4 -	эo 1	 	7	7	7	0	- 2	-	7	9 1	-10	-11	_ _ 	_	-15	C	- ∞ 	?	0	က က	-17	-15	 ∞ 
her	Year	885	879	875	879	879	879	1884			-					_	_			_	_		-				-	-	_	_	_	
November	Min. Y			_	_	_	_	25		_	_	_	_	_	_		_	_	_		_	_	_		_	_	_	_	_	_	_	:
	Year	==	669	668	288	185	588	383		573	125	581	929	475	375	976	883	988	83	7.7.5	00(	12.7	583	383	879	379	87.6	986	980	929	1928	104
October	Min. Y			_		_	_	_	_	_	_				_	_			-	-		_	_	_	_	_	_	_	_	-	28	_
	Year	87	96	93	7.5	96		1888	ස ස	25.	83	17	75	=	元	13	66	22	75		- 53	- 	04	04	85	06	19	22	7	14	- 88	:
September				_	_	_		43 18	_		_	_								_	_	_	_	_		_	_	_	_	_	_	:
	ar Min.		_												_								_	_	_							
August	ı. Year		_	_	_		_	_			_		_			_		_	_	_		_			_	_	_	_	_	_	49 1912	
<b>V</b>	r Min.	_						_	_		_	_	_	_			_		_			_	_			_	_	_	_	_	_	
July	Year.			_			-	_	_	_			_			_		_	_	_	_	_	_	-	_	_	_	_	_		1880	_
f	Min.	51	51	51	53	52	200	52	55	53	53	54	54	56	55	54	54	54	25	54	54	55 —	50	*57	54	53	56	5.5	54	55	55	54
June	Year	1876	1884	1915	1881	1881	1895	1932	1932	1923	1881	1881	1906	1881	1875	1884	1303	1926	1920	1920	1918	1918	1881	1932	1932	1903	1903	1897	1918	1919	1919	:
J.F	Min.	44	42	77	44	45	46	*45	45	47	45	46	46	46	46	44	48	48	47	47	47	49	48	*47	*46	48	52	52	52	49	52	:
May	Year	1880	1874	1882	1911	1907	1891	1900	1885	1917	1905	1900	1907	1882	1895	1885	1936	1882	1882	1882	1892	1907	1894	1885	1882	1925	1882	1915	1917	1905	1884	1884
M	Min.	33	88	33	333	35	333	88	88	33	34	33	33	38	37	38	34	 68	38	38	÷	7	30	40	98	45	33	<u></u>	43	33	35	Ge Se
li:	Year	1923	1919	1894	1879	1874	1881	1881	1888	1876	1917	1900	1874	1874	1923	1923	1928	1908	1887	1875	1897	1875	1875	1872	1885	1892	1919	1909	1882	1909	1874	:
April	Min.	13	19	23	19	11	50	55	21	24	- 56	52	50	50	27	80	58	97	- 92	- 55	21	5	- 97	30	58	27	- 58	33	35	31	31	:
ch	Year	1886	1886	1884	1884	1872	1872	1872	1883	1885	1929	1933	1900	1885	1896	1932	1872	1916	1885	1876	1885	1885	1885	1934	1874	1878	1880	1873	1923	1923	1881	1923
March	Min.	- 1	0	-01	20	4	ж эо	27	œ	_ G	<u></u>	=	7	ဢ	15	~:	- 01	10	2	ص د	10	-	20	9	9	10	18	91	=	4	10	15
ary	Year	950	881	881	988	816	895  -	1875	934	934	875	668	914	914	934	875	888	968	968	936	916	916	918	876	894	894	878	006	907	884	:	<u>:</u>
Februar	Min. Y	- 7 1	1 5	- 5	- 2 -	-10 1	_	- 5 -							- 3	-	_	_ = =	0	*	6 1	0	2	- 3	- 7	- 6 1	- 1 -	- 4 1	2	<u>۔</u>	:	:
	Year				-	-	-	1896	-	_	_	_	-	-	914	1.50	_	_	<b>F</b> 00	104	100	888	888	- 785	- 285	-   98	- 120	-   57	335	888	373	070
January	Min. Y		-	-		60	10	- 2 18	=	33	-	4	01	-			-		-		-		_			-	_	_	-	_	- 5 1	- 8
	Date	1::	23	3	4	5	9	7			10			13	14	15.	16	17	18	19	20	21	22	23	24	25	26	27	28	- 58	30	31

\* Has occurred on previous dates also.

### Maximum Amounts of Precipitation

	5 mi	n's	10 m	in's	15 m	in's	30 m	in's	ı ho	ur	2 hc	urs	24 hc	urs
Month	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.
Jan.	.15	1936	.25	1936	.29	1936	. 40	1936	.57	1919	. 81	1919	3, 25	1881
Febr.	.10	*1926		*1918		1920		1920		1920		1920		1886
Mar.	. 15	1913		1913		1913		1913		*1932		1932		187
April	. 13	1936		1921	. 24	1920	. 31	1920		1931		*1931	3.19	192
May	.55	1932	.62	1932	. 63	1932	. 65	1932	.69	1926	.94	1926	3.31	1920
June	. 42	1925		1905	. 75	1905		1925	1.07	1922	1.28	1922	5.35	1875
July	.50	1927	.67	1916	. 85	1916	1.33	1916	1.62	1921	2.45	1915	6.04	192
Aug.	. 55	1908		1908	1. 12	1908	1.45	1908		1901		1917	4.99	1879
Sept.	.25	1902		1927	. 62	*1927		1911		1904		1904		1933
Oct.	.34	1928		1928	. 67	1928		1906		1906		1906		189
Nov.	. 21	1925		1932		1927	*.62	1932		1932		1927		1870
Dec.	. 15	1937	. 21	1937	.26	1937	.45	1937	.81	1937	1. 47	1937	3.36	193'
TTZ . I.											1	-		
High-		****	0.4	1000		1000	2 12	1000	1 00	1001	0 45	1000	0.01	100
est	. 55	1908	.91	1908	1.12	1908	1.45	1908	1.80	1901	2.45	1915	6.04	192

### MONTHLY AND ANNUAL PRECIPITATION.

37	i i	p.	ř.	i.	May.	June	July	Aug.	Sept	ئب	<u>×</u>	ွ	n'1.
Year.	Jan.	Feb.	Mar	Apr.	N	Jn	Ju	γr	Se Se	Oct.	Nov.	Dec.	A n
+6+4	2,64	2 10	4 05	6 15	- 06	2 15	4.08	0.46	7.81	2.11	7 01	0.86	10.00
1818	0.70	3.49	4.05 6.21	6.15	5.96 3.06	3·47 3·56	2,02	4.38	5.29	1.40	1.91	1.63	42.99
1820	3.12	4.25	4.90	0.45	5.08	3.42	4.19	5.15	2.43	5.39	3.00	2,80	44.18
1821	1.41	4.42	2.53	4.90	4.84	2.79	2.35	1.58	4.73	2.29	3.12	1.93	36.89
1822	1.29	2.34	2.02	2.99	0.78	3.54	4.32	1.20	2.15	2.53	2.58	1.46	27.20
1823	3.00	4.57	7.72	2.21	6.40	0.93	5.74	1.98	1.95	3.95	1.92	6.93	47.30
1524	3.95	5.99	1.81	4.72	1.43	1.60	0.88	3.68	6.43	1.01	1.72	2.80	36.02
1825	2.79	3.43	4.70	0.37	1.36	4.77	I. 24	5.62	2.66	3.21	0.81	4.38	35.34
1826	2.55	1.48	3.81	1.50	0.25	3.85	2.90	12.10	3.03	3.80	2.31	3.56	41.14
1827	3.92	2.97	2.51	4.75	5.34	2.56	2.59	4.88	4.81	5.28	5.71	3.59	48.91
1828	2.15	2.79	1.84	2,00	4.67	1.59	4.58	0.37	3.82	2.79	5.55	0.26	32.41
1829	4.93	5.62	4.30	3.45	2.71	1.64	6.98	4.95	2.62	1.65	5.74	2.26	46.85
1830	2.36	1.63	3.5I	1.21	3.03	3.46	4.90	2.64	5.65	2.38	5.32	5.96	42.95
1831	4.44	3.68	3.07	6.97	3.65	4.32	5.53	5.57	3.83	4.42	3.20	2.93	51.61
1832	4.47	3.74	2.65	5.56	7.27	0.50	3.41	6.14	2.07	6,00	3.57	4.85 5.86	46.69
1833 1834	2.95	2.53	2.71 0.96	2.30	6.33	3.23	7.71	2.47	3.71	4.62	5.53	2.36	39.60
1835	1.39	1.13	4.27	4.54	2.07	2.74	9.07	2.89	1.31	1.87	2.08	2.40	37.86
1835	3.25 8.84	3.57	2.90	1.58	1.85	4.33	2.12	1.53	0.54	4.04	5.43	4.13	40.86
1837	4.10	4.14	3.02	3.07	5.79	2.98	1.80	1.67	0.56	1.58	2.35	2.46	33.52
1838	3.07	2.77	3.09	2,62	3.32	2.55	1,20	4.26	9.87	5.02	3.95	0.80	42.52
1839	0.98	3.11	1.18	7.73	4.27	2.25	3.32	5.70	2.00	2.50	1.71	6.35	41.10
1840	3.12	2.57	4.55	4.60	2.23	2.78	2.93	4.00	2.12	4.48	11.63	4.15	49.16
1841	6.00	1.60	3.50	8.82	1.90	1.95	2.10	4.20	2.86	3.80	4.55	5.77	47.05
1842	0.80	3.20	3.35	3.50	2.90	5.30	1.82	4.44	3.25	0.80	4.45	5.30	39.11
1843	2.20	6.08	6.17	3.88	1.60	4 61	2.15	6.88	0.98	4.82	3.40		46.69
1844	3.68	2.42	6.00	0.20	2.72	1.40	2.17	2.62	3.53	5.80	3.15	3.85	37.54
1815	4.58	4.25	3.83	1.23	2.82	2.05	3.28	1.82	2.23	4,00	10.25	5.98	46.32
1846	3.12	2.95	2.73	1.23	2.02	2.25	2.51	6.45	1.30	1.35	4.17	4.52	29.95
18.48	3.28	4.70	4.77	2.20 1.40	6.30	4.09 1.73	2.65	3.10	6.64	5.10	5.12	3.95 5.95	46,93
1849	0.35	1.15	7.35	0.90	3.10	1.45	0.85	6.25	3.55 1.25	8.10	5.50	4.05	40.30
1850	4.59	2.52	5.32	4.82	6.63	2.77	2.70	5.30	7.15	2.10	3.32	6.76	53.98
1851	1.30	4.20	3.88	9.37	3.31	1.80	3.09	1.27	3.50	4.43	5.51	2,65	44.31
1852	4.85	2.85	4.45	10.18	1.95	2.35	3.28	7.63	1.65	2.19	3.47	3.09	47.94
1853	2.44		2 27	3.78	5.63	0.30	3.64	9 40	3.80	3.92	4.43	3.95	48.86
1854	2.91	5.30	2.84	6.63	4.33	2.47	3.70	0.58	3.86	2.08	6.80	4.64	45.71
1855	7.22	4.67	1.18	4.28	1.20	3.09	4.15	1.46	1.13	4.61	5.27	5.93	44.19
1856	5.32	0.80	1.33	4.37 10.83	7.10	2.90	4.02	II.II	4.90	2.70	3.33	4.28	52.16
1857	5.36	2.45	3.09		5.57	2.02	5.53	7.18	2,56	4.50	2.52	5, 26	56.87
1858	3.28	2.30	2.18	5.18	3.89	8.09	4.56	7.03	5.02	3.03	3.3S	4.73	52.67
1859	5.93	4.05	7.64	3.36	3.63	7.89	1.58	4.72	4.40	3.28	3.75	6.47 5.86	56.70
1860	1.89	3.85	2.19	1.73	2.35	3.64	5.90	6.04	7.35	2.66	5.37	2.35	51.47
1862	8.30	3.57	7.48	1.97	2.70	6.78		4.20	5.61	4.85	8.32	3.01	61.06
1863	4.51	4.54	6.42	9.08	2.82	2.56	7.33 12.38	5.64	3.12	3.83	6.48	6.34	67.72
1864		1.43	11.75	4.72	3.31	1.47	1.90	4.17	2.60	4.80	4.00	5.28	49.30
1865		5.08	4.83	2.57	6.90	2.83	4.26	1.42	0.62	6.21	4.46	4.18	47.83
1866	3.73	5.28	4.70	2.03	5.04	3.41	5.42	3.87	5.90	2.72	3.74	4.86	50.70
1867	6.06	6.55	6.12	2.52	4.11	2.74	4.76	10.78	0.44	6.76	2.32	2.48	55.64
	1	1		1	1	1	1	1		1			}

### MONTHLY AND ANNUAL PRECIPITATION-Continued.

9.8 7.0 2 2.6 1 2.3 6 3.2 2 3.4 3.7	Jan	Feb. Mar	Apr.	May	June.	July	Aug	Sept.	Oct.	Nov	Dec.	An'l.
9.8 7.0 2 2.6 1 2.3 6 3.2 2 3.4 3.7	6.09	1.88 5.04	6.94	10.38	3.79	1.10	7.53	11.95	1.78	5.31	2.32	64.1
2 2.6 1 2.3 6 3.2 2 3.4 3 3.7	4.03	9.98 8.74	2.05	6.85	4.44	3.30	2.19	5.18	6.71	3.74	9.04	66.2
1 2.3 6 3.2 2 3.4 5 3.7	8.16	7.03 4.88	5.42	2.58	7.59	4.01	1.57	0.67	6.80	4.40	3.62	59.7
<ul><li>δ   3.2</li><li>2 3.4</li><li>3 3.7</li></ul>	0.92	2.63 4.55	3.79	4.34	5.55	3.22	3.08	1.30	5.88	6.42	3.38	45.0
3 3.7	2.11		1.31	3.29	4.84	4.00	10.68	6.04	4.85	3.66	3.09	50.2
5 3.7	1 5.76		3.53	5. :6	0.54	3.84	6.67	2.91	5.33	8.34	5.64	54 • 5.
2.1	4.32		7.97	3.76	3·94 7·25	3.47	3.50	2.05	1.39	2.85 5.47	0.75	43.5
7 4.5	3.65		3.61	2.70	1.72	3.93	1.23	3.84	1.66	11.03	3.71	50.I
3 0.4	3.33	0.45 7·19 0.45 9·79	4.19	3.38	3.21	2.27	4.49	0.60	8.84	9.62	1.32	51.4
	7.50	4.40   5.91	0.14	1.03	2.28	4.58	7.66	3.47	6.76	8.94	6.76	65.5
	2.79	4.35   3.90	6.58	0.97	6.24	3.09	6.71	1.84	0.91	2.97	4.22	44.5
2 4.1	3.72	4.11 3.25	2.85	1.63	0.75	6.86	2.90	2.36	3.15	2,30	3.42	37.3
	7.21	4.89 9.86	1.65	4.16	7.79	2.96	1.23	2.50	2.84	3.73	3.80	52.6
	3.68	4.77 3.35	2.50	6.05	1.03	3.91	1.46	10.93	2.29	1.20	2.65	43.8
9 2.7	3.59	2.74 2.33	2.53	5.11	2.07	2.73	0.39	1.50	6.40	2.08	3.71	35.4
	6.27	5.74 4.56	4.76	3.31	4.01	4.25	5.01	0.31	3.17	3.03	4.46	49.I
	5.33	3.00 I.15 7.04 3.20	3.30	3.08	3.70	1.44	7.64 3.64	1.70	5.71	5.78	3.66	45.1
	4.86	3.69 3.86	2.62	1.67	1.34	3.59	3.04	0.97	3.27	3.59	2.71	42.1
	4.86	2.36 3.32	2.04	5.20	2.69	1.79	6.53	6.77	3.58	4.97	4.38	33·7 45.8
	1.11	1.54 1.19	3.07	4.15	2.77	5.80	3.95	3.19	3.31	4.91	1.83	39.8
	2.00	2.29 5.85	2.29	4.48	2.21	1.93	2.70	5.04	5.63	0.97	3.72	39.1
	4.39	3.66 3.94	1.71	1.56	3.06	3.73	3.87	2.29	5.56	2.35	3.58	39.7
	4.62	2.15 3.91	0.93	5.15	3.05	2.56	4.87	1.90	2.31	4.45	1.12	37.0
	2.56	6.22   2.80	3.13	5.23	2.20	1.72	6.46	1.59	2.94	1.83	5.16	41.8
	3.0	3.15 1.01	3.78	4.12	0.80	3.09	3.03	2.14	5.11	3.10	4.28	36.6
	3.79	1.11 2.72	3.65	2.71	1.73	2.98	3.24	1.53	6.19	8.07	2.45	40.1
	2.25	3.94   5.41	1.56	1.65	2.71	2.90	2.15	6.40	3.15	3.70	1.70	37.5
	36	2.12 2.79	3.17	4.00	4.46	4.22	3.95	2.38	0.41	6.19	3.92	40.7
	3.50	4.81 1.82	6.39	4.33	1.60	4.42	6.38	1.93	7-17	5.32	2.19	49.8
3.0	4.19	3.03 5.95 6.83 4.60	1.29	0.81	2.86	2.52	2.52	5.09	2.40	2.51	1.52	34.6
	4.20	6.8 <sub>3</sub> 4.60 0.66 6.58	1.90	5.07 6.31	1.85	2.69	2.46	4.62 2.50	3.41	4.17	2.25 8.49	44.0
	1.56	4.19 5.29	7·43 2.87	1.07	1.31	2.88	3.25	2.08	4.36	1.00	4.48	48.7
	3.43	3.90 5.95	4.43	0.32	7.19	2.99	3.33	2.43	3.95	1.48	2.57	33.9
	4.85	2.49 2.43	9.14	3.38	2.06	1.23	2.10	5.57	2.13	1.70	2.52	39.6
	4.09	1.59 2.25	2.14	1.47	5.23	1.00	3.39	5.10	0.82	1.77	3.23	32.08
	2.96	2.66 5.45	2.15	4.91	2.57	5.38	1.58	2.64	3.88	2.55	3.96	40.6
1 , 1.8	2.51	1.88 1.66	3.31	3.12	2.56	1.09	1.10	7.43	2.54	6.02	4.31	37.5
	2.17	2.95 2.97	1.70	3.78	80.1	3.17	4.35	0.68	3.70	0.74	2.47	30.0
	3.94	4.71 3.28	3.92	2.33	4.45	0.97	3.55	5.15	1.07	4.11	3.19	40.6
	4.25	3.44 1.25	2.22	1.02	4.89	1.15	0.98	2.14	1.14	3.75	2.10	28.3
	2.25	2.85   2.95	2.28	0.35	3.67	4.65	4. 17	2.05	2.27	4.29	3.07	35.7
	2.87	2.39 4.18	3.07	4.04		5.16	2.86	1.67	6.04	2.61	5.36	34·5 38·1
	2.38	2.99 4.81 3.07 4.16	4.77	3.22	0.64	2.69	3.20	2.51 8.21	1.54	2.15	3.05	
2 2 1	3.26	3.47 T.	5.87 1.86	1.64	1.39	3.85	5.63	0.69	2.82	2.14	3.46	34.3
3 5.1	.23	5.18 3.20	4.51	2.83	5.04	5.67	2.19	1.90	0.94	1.67	3.00	37.36
2 2.6	2.82	2.67 3.73	2.72	4.45	4.05	1.10	7.06	1.91	5.33	0.59	2.56	38.99
	3.11	2.30 3.19	3.08	1.99	1.94	2.64	1.56	9.19	0.99	1.20	3.21	34.40
2 2.6	3.62	2.65 4.11	2.33	4.25	1.08	4.63	5.07	5.83	2.13	5.36	1.63	42.70
2 5.8	2.72	5.88 3.72	5.68	5.26	5.78	1.56	2.32	1.90	1.64	5.46	3.59	45.8
	2.24	2.61 1.92	4.62	3.64	3.58	11.69	1.63	I. 22	1.24	6.19	2. 35	42.90
2.6	" I.4I	2.64 4.35	2.48	5.34	8.05	2.63	4·75 1.86	3.66	1.97	0.84	3.01	41.1
	6.07	1.48 2.49	5.20	0.83	2.03	3.36	1.86	0.38	3.37 0.06	2.78	4. 98	34.8
	3.27	2.61 2.04	3.79	2.81	1.07	2.04	6.86	6.96	0.00	1.93	1.48	34.9
1.5	3.97	1.55 5.21	2.48	2.07	4.59	3.54	1.40	3.45	4.03	3.66	5.20	41.15
5.5	2.53 2.67	5.56 2.91	1.73	3.31	1.33	6.06	3.91 6.73	1.08	3.58	4.07	3 96	40.0
3.20	1.66	3.28   1.19   2.66   1.56	1.36 4.68	2.50 3.08	2.43	4.77	2.45	2.43	3. 77 2.88	4.71 1.85	5.23	37.60
2 2.78	3.82	3.78   2.80	7.52	2.82	5.56	1.35	2.22	0.76	2.38	3.01	4.43	37.19
	2.77	2, 23 3.02	2.08	3.39	2.24	3.36	3.03	0.26	5.83	4.09	2.99	35. 29
	4.09	4.21 4.66	3.12	4.51	9.13	2.43	4.45	1.67	2.18	0.82	2.90	44. I
	4.21	1.74 5.28	1.67	1.63	2.05	2.10	4.24	4 50	7.18	5.24	1.78	41.6
1 3.77	2.04	3.77 6.80	7.37	2.74	1.22	2.63	3.41	10.94	3.11	0.65	2.93	47.6
4 - 45	2.67	4.45 4.04	3.21	1.56	3.11	1.25	1.83	5.67	2 94	1.78	1.64	34.15
	6.13		1.77	1.35	5.07	1.10	2.14	2.69	2.67	3.91	0.66	32.94
	6.46	3.66 6.40	3.54	1.70	2.37	1.04	5.15	3.79		1.33	8.19	46.30
1.31	3.93	3 57	5.34	2.52	3.47	1.17	4.97	3.69	3.95	4.66	5.09	43.67
1	*3.55	3.31 3.74 3.44 3.94	3·55 3·74	3.18	3.11	3·42 3·53	3·74 3·95	3.15	3. 36 3.48	3.64	3·30 3.64	41.09
	*3.55		3.31 3.74	3.31 3.74 3.55	3.31 3.74 3.55 3.18	3.31 3.74 3.55 3.18 3.11	3.31 3.74 3.55 3.18 3.11 3.42	3.31 3.74 3.55 3.18 3.11 3.42 3.74	3.31 3.74 3.55 3.18 3.11 3.42 3.74 3.15	3.31 3.74 3.55 3.18 3.11 3.42 3.74 3.15 3.36	3.31 3.74 3.55 3.18 3.11 3.42 3.74 3.15 3.36 3.64	3.31 3.74 3.55 3.18 3.11 3.42 3.74 3.15 3.36 3.64 3.30

Note.—Bold-faced figures indicate greatest and least monthly and annual amounts. \* Computed from the Weather Bureau records of 64 yrs. † Averages 117 yrs. From 1818 to 1822, Dr. Enoch Hale; from 1823 to 1865, Jonathan P. Hall; from 1866 to 1870, Superintendent of Sewers.

### KILLING FROSTS

Year	Latest date in spring	Earliest date in autumn	Year	Latest date in spring	Earliest date in autumn
1873 1874 1874 1875 1876 1876 1877 1878 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1889 1899 1899 1899 1899 1899 1899	May 3 April 22 April 10 April 19 Mar 26 April 10 April 19 Mar 26 April 15 May 16 April 22 April 15 May 16 April 29 April 29 April 29 April 29 April 29 April 20 April 20 April 20 April 20 April 30 April 31 Mar 31 Mar 31		1906	April 21 April 29 April 29 Mar. 19 April 18 April 19 April 10 April 14 April 14 April 19 April 11 April 29 April 11 April 20 April 11 April 21 April 21 April 21 April 21 April 21 April 31 April 31 April 31 April 31 April 21 April 20 April 40 April 33 April 20 April 40 April 30 April 40 April 50 April 17 April 17 April 38 April 21 April 21 April 38 April 39 April 30	Oct. 12 Oct. 12 Oct. 22 Nov. 2 Oct. 16 Oct. 18 Oct. 18 Oct. 18 Oct. 18 Nov. 1 Oct. 28 Nov. 18 Nov. 10 Oct. 30 Nov. 11 Oct. 26 Oct. 10 Oct. 20 Oct. 20 Nov. 5 Nov. 5 Nov. 5 Nov. 4 Oct. 26 Oct. 27 Nov. 20 Oct. 21 Nov. 4 Oct. 26 Oct. 21 Oct. 28 Oct. 30 .

Average date last killing frost in spring, April 16. Latest date, May 16, 1882 and 1936. Average date first killing frost in autumn, October 24. Earliest, September 26, 1879.

### Prevailing Wind Movement

		8		بالناب								10.000	
Wind	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
North   per cent of time. hourly velocity	11	9	8 10	9	7 9	6 9	5 8	7 8	9	9 9	11 10	10.	
Northeast { per cent of time. } hourly velocity	4 11	6 10	7 10	11 9	11 8	9	6	6	7 8	8	6	4 9	
East { per cent of time. hourly velocity	11	6 9	10 9	14	17 8	16 8	13 6	15 7	12 7	8 7	5 10	4 9	
Southeast.   per cent of time.   hourly velocity	4 8	4 8	6 <b>8</b>	5 8	6 8	5 7	5 <b>6</b>	7 6	6	5	4 10	4 8	
South { per cent of time. hourly velocity	6 <b>9</b>	7 8	8	7	10 10	9 <b>9</b>	9	9	9 <b>10</b>	9 9	7 10	6 10	
Southwest { per cent of time. hourly velocity	20 11	15 10	17 10	16 11	20 <b>9</b>	25 10	30 9	24 9	23 9	20 <b>10</b>	21 10	20 10	
West { per cent of time. hourly velocity	29 12	29 <b>12</b>	23 12	20 12	17 10	20 10	21 <b>8</b>	19 <b>9</b>	18 9	22 <b>10</b>	25 11	30 12	
Northwest { per cent of time. hourly velocity	22 12	24 12	21 12	18 11	12 10	10 8	11 8	13 8	16 9	19 <b>10</b>	21 10	22 11	
Prevailing direction	w.	w.	w.	w.	sw.	sw.	sw.	sw.	sw.	w.	w.	w.	w.
Average hourly velocity	11	12	12	11	10	10	9	9	9	10	11	11	10

Based on 24 years records: anemometer elevation 188 feet above ground.

Daily Maximum Temperature, 1937

Date	January	February	March	April	May	June	July	August	September	October	November	December
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31.	53 41 56 41 46 48 44 45 46 48 44 46 46 46 59 59 50 50 50 50 50 50 50 50 50 50	39 29 34 31 33 33 33 35 55 51 48 56 50 39 35 45 45 45 45 47 42 38 39 36 45 45 45 45 45 45 45 46 46 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	45 46 40 40 57 43 28 35 37 42 26 37 37 37 37 49 43 55 51 50 44 44 45 43 48 47 48 48 47 48 48 48 48 48 48 48 48 48 48 48 48 48	53 43 40 44 45 57 53 61 45 45 57 53 64 67 67 53 60 61 62 24 43 44 45 57 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 50 61 61 61 61 61 61 61 61 61 61	62 57 77 77 68 85 60 48 62 63 69 77 67 63 60 64 64 65 65 69 65 75 75 75 70 85 70 85 85 85 85 85 86 86 86 86 86 86 86 86 86 86 86 86 86	95 66 66 73 78 74 75 73 86 77 71 81 83 83 83 76 62 66 69 65 75 80 62 62 63 64 64 64 64 64 64 64 64 64 64 64 64 64	77 77 76 88 88 89 99 80 80 80 80 80 80 80 80 80 80 80 80 80	78 83 90 88 91 84 88 97 87 86 48 87 86 83 93 44 86 89 95 76 62 82 82 84 84 84 84	85 98 98 65 67 67 68 68 67 67 69 68 61 68 64 74 74 73 69 81 81 81 82 83 84 85 86 86 86 86 86 86 86 86 86 86	69 58 74 71 72 56 54 52 50 66 66 71 69 66 69 57 67 52	52 52 54 54 54 59 64 65 59 64 47 56 55 55 50 49 49 49 43 33 41 52 58 62 64 64 64 64 64 64 64 64 64 64 64 64 64	44 37 38 47 38 47 38 47 35 34 33 31 24 41 41 44 40 29 48 46 34 42 42 42 42 42 42 42 42 42 42 42 42 42
Mean	45.3	39.9	41.7	52.2	68.1	74.2	81.7	82.8	70.6	60.3	51.2	37. 4

Daily Minimum Temperature, 1937

Daily Precipitation, 1937

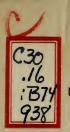
Day	January	February	March	April	Мау	June	July	August	September	October	November	December
1	* .25 .01 T. * .23 T21 .18 * .15 .666 .10 .1122	T. * 40 * T. * T.	* T. * (T. * .01 * .01 * .02 * T. * .09 * .1.09 * .1.09 * .1.09 * .1.04 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.15 * .1.1	* 444 T			.02 T. .35 .05 .20 .13 .25 .05	.55 .08 T		T	. 03 T	2.91 *.45 *.06 *.24 *.24 .08 .48 *.T. *.19 .39
Total	3.93	1.31	3.57	5.34	2, 52	3 47	1.17	4.97	3.69	3.95	4. 66	5.09

T. indicates a trace. \*Wholly or partly snow.

### Daily Cloudiness, 1937 [Daylight hours; scale 0 to 10]

Day	January	February	March	April	May	June	July	August	September	October	November	December
1	5 10 10 3 5 1 10 10 9 10 4 4 3 2 2 10 10 10 10 10 10 10 10 10 10 10 10 10	6 3 1 2 10 9 1 10 10 5 4 5 9 10 9 8 1 1 6 0 7 10 2 10 5 7 2 1	0 5 0 10 9 10 0 10 8 4 4 3 2 9 10 10 10 10 10 6 5 7 7 9 10 10 10 10 10 10 10 10 10 10 10 10 10	0 10 9 6 10 10 10 8 7 5 6 6 9 9 9 5 10 10 10 2 1 10 10 0 2 10 10 0 10 0 1	0 1 1 2 8 9 10 10 5 5 9 1 10 10 10 10 10 10 10 10 10 10 10 10 1	5 8 7 7 7 6 6 7 7 7 6 6 7 9 9 9 8 8 2 2 2 10 4 4 2 2 5 10 9 9 4 10 10 8 1 7 7 10 8 9	6 8 9 2 4 4 3 3 3 3 10 9 4 4 4 4 3 3 3 10 5 7 7 7 5 4 6 6 0 0 7 1 3 8 8 8 5 5 3 7 9 6 9 6 9	8 6 6 4 3 4 4 5 5 6 6 7 8 8 6 6 2 2 2 3 3 9 9 4 4 6 6 10 10 9 9 4 10 11 2 8 1 1 5.5 5	0 5 1 4 10 5 3 1 1 0 0 0 10 4 10 6 1 5 8 3 3 7 7 2 2 0 0 0 0 0 8 8 2 7 7 10 8 0 0	8 6 10 10 2 10 4 4 4 5 10 10 10 10 10 10 10 10 10 10 10 10 10	1 7 5 3 3 7 7 7 3 9 4 4 3 0 10 10 10 5 4 10 6 6 7 10 10 7 7 10 10 7 7 10 11 1 1	0 9 1 0 2 10 2 10 9 6 6 6 2 0 0 0 0 5 5 7 10 10 5 5 5 7 9 4 4 8 8 8 7 1 10 2 10 7 5 5 2 5 2
mean	7.3	5.8	5.6	0.8	6.1	0.1	6. 9	5.5	5.8	4.0	0.3	0.2

Note.—Clear (0 to 3). Partly cloudy (4 to 7). Cloudy (8 to 10).



### U.S. DEPARTMENT OF AGRICULTURE WEATHER BUREAU

## ANNUAL METEOROLOGICAL SUMMARY H COMPARATIVE DATA 1938

BOSTON, MASS.

Boston Public Library Kirstein Business Branch

> COMPILED BY G. H. NOYES

Page 4. Precipitation, longest period with, 8 days, should read July 18-25,
Page 4. Last line, last thunderstorm should be Oct. 28.
Page 10. Second paragraph, 5th line, should read "respectively".

BOSTON, MASS.

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2			BOS	TON	, M.	ASS	ACI	HUS	SET	TS						
1		i ė	0° or below.	0	0	0	0	0	0	0	0	0	0	0	0	0
		Min. temp.	32° or below.	29	22	15	9	0	0	0	0	0	0	7	22	101
		Max. temp.	900 or above.	0	0	0	0	0	-	2	9	0	0	0	0	6
		Mg ter	32° or below.	14	5	-	0	0	0	0	0	0	0	က	∞	25
	lays.		Dense tog.	2	2	က	2	4	က	5	က	2	က	က	5	37
	o jo		Thunderstorms.	0	0	0	2	-	2	10	10	က	2	0	0	30
	ber	nore.)	Snow (0.1 in. or n	∞°	9	7	-	0	0	0	0	0	0	က	77	99
Ì	Number of days.		With precipitation or more	=	16	10	10	14	12	17	12	12	10	10	13	147
			Cloudy.	=	15	16	14	17	12	16	6	13	11	13	16	163
			Partly cloudy.	12	7	<b>x</b> 0	10	10	11	12	15	7	10	∞	9	116
			Clear.	∞	9	7	9	4	7	က	7	10	10	6	6	98
		req (	Gales (32 miles hour or over	2	2	1	0	1	_	0	1	-		2	2	14
		٠.	Date.	25	28	17	11	155	19	23	24	21	30	25	28	Sep 21
		Highest	Direction.	œ	nw.	ne.	vi.	ne.	ne.	sw.	nw.	oi	ne	nw.	Ψ.	ý
	Wind.	H	Velocity.	48	37	34	31	43 :	32	52	32	55	333	39	36	£5
	W	.noite	Prevailing direc	W.	nw.	W.	SW.	6	Sw.	·Aff	B	n'a	ne.	sw.	nw.	sw.
			locity.		9	9	2	99	14	9.3	9	10.0	111	.9	.7	
1		-9A	Average hourly	10.	1	12.	12.	-	10		oo	13		=	11.	11.1
	Sun- shine	ble.	Percent of possi	4	1 39	9 47	3 58	٦ 62	2, 66	25.52	9 2 9	8 57	8 52	0 54	6 44	0 55
	Susph	*s	Number of hour	121 9	0 114	3 176	9 333	S	302	242	326	213	178	0 160	9 126	53.3 2470
			Snowfall.	29. (	10.0	o	0	0	0	0	0	0	-	10	1.9	
	ation		Date.	1-2	က	16-17	8-9	14-15	27-28	21-22	16-17	19-20	24	19-20	9 -9	July 21-22
	Precipitation.	·sin	Orestest in 24 ho	1.65	0.59	1.12	1.47	1.91	2, 29	3, 12	2.00	1.63	1.71	1.27	1.31	3. 12
	Pr		Total.	4.91	2.38	2. 42	3.22	4.42	6.30	9,46	3, 31	6.00	2.43	2.89	2.80	50.54
	0 1	چېژ.	.m .q 08:7	92	72	69	29		73	78	73	92	74	22	65	77
	Relative	(per cent).	nooN	99	89	61	25	99	99	29	99	09	61	62	61	99
	Re	(per	7:30 a. m.	81	11	72	72	71	22	81	77	78	- 08	9/	72	92
			10000	19	28	300		້ ເລື	8	14	53	6	7	56	2	Jan. 19
		or or	Date T	200		141				0-100/	Z.		~	<u></u>	~	3 3
	a:	eme.	Lowest.	- 8		~	3 25	4 41	1 48	1 54	2 56	1 45	2 38	7 12	13	
	Temperature.	Extremes,	Date.	7	9	23	28	24	21	31	15		17		4	Aug.
	nper		Highest.	57	53	78	83	81	93	06	94	85	87	77	57	- 6
	Ter		Monthly.	28.0	30.6	39.1	48.7	55.8	67.2	71.8	73.6	62.2	56.0	46.4	34.0	51.1
		Mean.	Minimum.	20.8	23.1	30.9	40.2	47.8	58.4	64.2	65.2	54.2	48.6	38.4	27.9	43.3
			.mumixsM	35.2	38.0	47.3	57.2	63.7	76.1	79.3	82.0	70.3	63.4	54.3	40.0	
			Month. C 3 0 6	January	February .	March	April	May	June	July	August	September	October	November	December.	Year 58.9
			- C30 16 1814													

Elevation of instruments above ground: thermometers, 33 feet; raingage, 3 feet; anemometer 62 feet.

# COMPARATIVE DATA AND EXTREMES

		BOSTON, M	IASSA	ACHUSETTS		
[	1	Minimum temp.	59		80	
	Average number of days	Minimum temp. 32° or below	59	25 24 110 100 22 22	106	
		Max. temp. 900 or above	59	0000334314000	6	1
		Dense fog	38		14	5
		Thunderstorms	88	www	18	
		Snow (trace or nore)	31	107.800000wsx	42	2
		Bain, .01 or more	09	202111200	125	
	Ave	Gloudy		803101000038	129	
		Clear Partily cloudy	 	00000000000000000000000000000000000000	118	
-		Clear		001000000000000000000000000000000000000	111111111111111111111111111111111111111	
		Year	09 ——	1886 1880 1877 1891 1803 1879 1879 1833 1875 1800 1875	1938	nan 1.
	puj	Direction highest	09	w w w w w w w w w w w w w w w w w w w	zó	§ Less than 1.
	‡ Wind	Highest velocity	09	848488485424	73	ြွေ
		Prevailing direc-	09	** ** ** ** ** ** ** ** ** ** ** ** **	. W	_:
		Average hourly velocity	09	11.1.5 10.00 10.00 10.00 10.00 10.00 10.00	10.3	nsec
	nine	Ретсепт	42	0.200.000.000.000.000.000.000.000.000.0	57	not
	Sunshine	Total hours	42	143 170 272 289 289 289 229 142 142 135	2582	record
	Relative humidity per cent	.m.q 8	40	6917277276	71	eet,
		Noon-local time	14	65 65 65 65 65 65 65 65 65 65 65 65 65 6	61	360 f
		8 a. m.	40	73778778778	73	eter :
	Precipitation	Year	65	1897 1921 1892 1917 1917 1884 1898 1999	1921	mome
		Greatest snowfall study A.	65	14. 7 16. 0 12. 0 17. 1 0 0 0 0 0 0 12. 0 12. 0 12. 0	16.0	5, ane
		Average snowfall	65	11. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	43. 5	r 193
		Year	65	1881 1886 1877 1920 1875 1921 1876 1933 1895 1837	1921	cembe
		Greatest in 24 suod	65	8.48888.004.04.08 24.01880888888 6.44.018808888888888888888888888888888888	6.04	to De
		Normal	90	00000000000000000000000000000000000000	40.14	ctober 1933 to December 1935, anemometer 360 feet, record not used
		Year	62	1882 1934 1872 1872 1932 1934 1914 1916 1936 1875 1938	1934	Octobe
		Absolute lowest	62	1 1 2 2 4 4 5 2 2 1 1 2 2 4 4 5 2 4 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	-18	
	Temperature	Year	62	1876 1930 1921 1925 1911 1917 1881 1881 1931 1931	1161	groun
		Absolute highest	62	70 88 88 88 88 89 100 100 100 100 100 100 100 100 100 10	101	ove g
		Normal	46	227.9 28.8 28.8 46.4 66.1 771.7 69.9 82.9 82.9 82.0	49.6	eetab
		Vlisb egstevA muminim	59	20.0 21.0 27.0 27.8 62.0 62.0 62.0 25.2 25.2 25.2 25.2	41.6	r, 188 1
		Vlisb egsteyA mumixsm	69	35.8 36.6 43.4 55.7 77.2 77.2 80.1 89.3 89.3	57.6	omete
		Month	L'gth of	Jears- Jan. Reb. March. April May. June. July. Sept. October.	Year	# Anemometer, 188 feet above ground

148-5-1937.

Monthly and Annual Mean Temperatures

1840 20.0 30.8 34.4 48.4 55.6 66.2 71.8 70.3 59.9 49.5 36.6 24 1841 27.9 22.3 33.1 41.1 53.2 67.4 69.8 68.5 62.3 44.6 36.4 30 1842 27.2 31.6 37.4 44.4 51.7 62.6 72.7 67.5 58.2 47.9 34.8 23 1843 29.7 16.8 25.4 43.5 54.5 64.2 69.2 69.9 60.6 47.5 34.3 26 1844 15.4 24.6 33.8 48.4 57.4 65.1 68.2 57.8 64.0 45.5 34.3 27 1845 27.2 27.6 36.2 46.3 56.6 68.1 72.1 71.3 60.2 51.8 44.3 25 1846 27.4 21.3 38.2 49.5 55.8 65.0 71.6 70.2 66.7 51.2 43.2 27 1845 26.4 25.9 30.8 42.0 53.4 60.7 73.0 68.1 61.0 47.7 44.1 34.1 848 29.1 24.7 32.2 45.5 57.8 64.8 70.2 69.6 58.6 49.8 36.2 34 1848 29.1 24.7 32.2 45.5 57.8 64.8 70.2 69.6 58.6 49.8 36.2 34 1848 29.1 24.7 32.2 45.5 57.8 64.8 70.2 69.6 58.6 49.8 36.2 34 1849 21.0 18.4 35.8 43.5 52.5 67.7 71.6 69.2 60.0 49.2 45.0 28 1850 27.2 29.4 32.6 42.4 51.4 67.2 71.6 67.0 61.0 51.4 41.0 25 1851 25.5 29.9 36.2 44.5 55.5 64.8 71.4 68.0 61.1 52.9 34.8 22 1852 20.8 27.4 32.9 41.0 56.8 67.4 72.4 66.6 62.1 50.4 38.3 35 1853 25.8 29.2 35.8 45.1 56.4 66.8 70.6 67.5 61.2 47.8 39.6 26 1854 23.9 23.5 32.4 42.3 58.7 65.6 74.4 66.6 62.1 50.4 38.3 35 1853 25.8 29.2 35.8 45.1 56.4 66.8 70.6 67.5 61.2 47.8 39.6 26 1855 28.4 20.2 32.3 44.1 53.4 65.5 72.2 67.3 61.4 51.5 40.0 28 1856 16.8 20.9 27.0 44.0 52.6 68.1 72.7 67.2 67.3 61.4 51.5 40.0 28 1856 16.8 20.9 27.0 44.0 52.6 68.1 72.7 67.2 67.3 61.4 51.5 40.0 28 1856 27.7 25.8 38.4 44.2 56.1 65.4 66.8 70.6 65.5 59.7 50.8 43.4 26.8 1850 27.7 25.8 38.4 44.2 56.1 64.2 69.7 68.0 58.8 45.5 31.3 1858 30.9 22.2 31.6 45.2 52.9 67.8 69.9 66.6 61.8 53.0 35.3 28 1850 27.7 25.8 38.4 44.2 56.1 64.2 69.7 68.0 58.8 45.5 30.9 22.9 22.7 31.6 45.2 52.9 67.8 69.9 66.6 61.8 53.0 35.3 28 1850 27.7 25.8 38.4 44.2 56.1 64.2 69.7 68.0 58.8 45.5 40.0 28 1850 27.7 25.8 38.4 44.2 56.1 64.5 69.7 69.9 66.6 61.8 53.0 35.3 28 1850 27.7 25.8 38.4 44.2 56.1 64.2 69.7 68.0 58.8 45.5 40.5 40.0 28 1850 27.7 25.8 38.4 44.2 56.1 65.4 66.9 70.9 70.9 67.6 62.0 54.2 38.4 30.4 44.0 58.3 66.0 69.9 67.6 62.0 58.2 44.0 58.0 44.0 58.3 66.0 69.9 67.	44.6 36.4 30.0 46.4	02	Aug	July	June	May	Apr.	Mar.	Feb.	Jan.	Year
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	62.3 58.2 60.6 64.0 60.2 66.7 61.0 65.6 60.0 61.1 62.1 61.2 61.5 61.4 63.0 62.0 61.8 58.8 59.7 60.1 60.3 60.1 60.3 60.0 60.1 60.3 60.1 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3	70.3 667.5 69.9 71.3 70.2 68.1 69.6 66.6 67.5 68.4 66.6 67.5 68.4 67.5 68.7 70.1 73.3 70.1 70.2 73.3 70.1 70.2 70.2 70.2 70.2 70.3 70.1 70.2 70.2 70.2 70.2 70.2 70.2 70.2 70.2	71.8 69.8 72.7 69.2 72.1 71.6 68.2 72.1 71.6 70.2 71.6 72.4 70.6 69.7 72.7 71.6 69.7 72.7 71.6 69.7 73.6 73.6 73.6 73.6 73.6 73.6 73.6 73	66.2 66.2 66.4 65.1 65.0 65.0 64.7 64.8 67.4 66.8 67.4 66.8 67.4 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 63.6 66.9 66.9	55.6 53.2 53.7 54.5 55.8 57.4 57.8 57.8 52.5 55.8 56.8 56.8 56.8 56.8 56.8 56.8 56	48.4 44.4 43.5 48.4 49.5 43.5 42.0 45.5 43.5 42.3 44.5 42.3 44.3 44.0 45.2 42.1 49.6 49.6 49.6 49.6 49.6 49.6 49.6 49.6	34·4 33·1 25·4 36·2 38·2 35·8 36·2 35·8 32·2 35·8 32·2 35·8 32·2 35·8 32·9 35·8 32·9 35·8 32·9 32·9 32·9 32·9 32·9 32·9 32·9 32·9	30.8 30.8 22.3 31.6 16.8 24.6 27.6 27.6 29.9 24.7 18.4 29.9 29.2 23.5 20.2 20.2 20.2 20.3 32.2 22.5 33.6 22.7 24.6 27.4 29.9 29.2 20.5 20.2 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9	20.0 27.9 27.2 29.7 27.4 27.2 27.4 29.1 21.0 25.5 25.8 23.9 25.4 25.4 25.4 25.4 25.4 25.4 25.4 27.2 22.9 25.4 27.2 22.9 25.4 27.4 27.4 27.4 27.4 27.4 27.4 27.4 27	1841 1842 1843 1844 1845 1846 1847 1848 1859 1851 1855 1855 1856 1857 1862 1862 1863 1864 1864 1865 1865 1865 1867 1866 1867

These temperature records were made at the Astronomical Observatory of Harvard College, which is located on Concord Avenue and Bond Street, Cambridge, Mass., about three miles from the Weather Bureau station in Boston, Mass.

### MISCELLANEOUS DATA FOR 1938.

Barometric Pressure (reduced to sea level).—Mean, 30.02 inches; highest, 30.88 inches, February 2; lowest, 29.06 inches. April 9.

Temperature.—Greatest monthly range, 65°, November; least monthly range, 36°, July. Highest mean temperature of three consecutive days, 83°, August 3-5; lowest mean temperature of three consecutive days, 15°, January 17-19.

Precipitation.—Longest period without precipitation, 12 days, October 2-13; longest period with precipitation, 8 days, July 13-25. Greatest amount in 24 consecutive hours, 3.12 inches, July 21-22. Maximum amount in 5 minutes, 0.35 inch, July 22; 10 minutes, 0.46 inch, August 16; 15 minutes, 0.70 inch, August 16; 30 minutes, 1.23 inches, August 16; 1 hour, 1.59 inches, August 16.

Frost.—Last killing frost in spring, April 11. First killing

frost in autumn, November 16.

Snow.—Greatest snowfall in 24 hours, 11.0 inches, January 13. Greatest depth of snow on ground, 8.0 inches, January 13. Last snow in spring occurred on April 8; first in autumn occurred on November 15.

Thunderstorms.—First thunderstorm occurred on April 1; last thunderstorm occurred on September 27.

### Monthly and Annual Mean Temperatures

		ف ا	i.	pr.	5	June	July	Aug.	pt.	نب	Nov.	<u>.</u>	An'1
Year	Jan.	Feb.	Mar.	Αp	May		<u>'                                      </u>	1	Sept.	Oct.	ŧ	Dec.	,
1871	26.0 27.4	28.6	41.5 26.0	47.0	57·9 59·4	65.9	70.8	71.7	59.3 64.5	51.8	36.6	27.9	48.9
1873	25. I	26.3	33.9	45.0	56.8	67.3	72.9	69.8	62.8	53.5	33.4	32.0	48.2
1074.	30.5	27.0	34 • 4	38.8	55.4	66.0	72.6 72.1	68.o	64.4	53.2	41.6	31.3	48.6 46.6
1875 1876	20.1	22.3	31.4	42.6	57·9 54·6	66.7	74.0	70.2	59.9	50.2 48.2	35.0	22.2	47.9
1877	30.7 24.8	34.2	34.9	44.2	55.0	66.8	71.1	72.2 69.7	05.2	52.0	44.2	36.4	50.1
1878	28.0	30.6	39.6	48.2	56.5 60.2	64.6	73·7 70·8	69.7	64.2	56.1	40.8 38.8	30.3	50.2 48.4
1879 1880	24.2 34.6	24.6 31.8	33.6	46.4	63.7	64.8 68.6	71.8	69.3	65.2	52.2	38.2	26.7	50.3
1881	22,0	27.9	37.2 36.0	43.6	56.6	61.7	70.2	71.4	67.6	54.4	43.6	39.0	49.6
1882 1883	26.0	30.4 28.8	30.8	42.8	50·6	70.1	73 • 2	71.5 68.2	64.0	55·4 47.7	39.0 42.8	30.4 29.1	48.8 47.9
1884	24.4 24.I	31.2	34.2	45.2 43.8	56.5 54.8	67.2	71.7 68.6	69.7	59.8	52.6	41.4	33.8	49.0
1885	27.4	20.6	27.6	47.2 48.6	53 - 2	66.8	71.8	67.8	60.1	51.6	44.0	32.7	47.6
1886	25.8	26.6 28.7	33.3	44.2	56.8	63.2	71.2	68.2 67.6	63.1 59.8	52.0 51.5	43.2	28.4 32.4	48.4
1887 1888	20.1	28.3	32.2	42.6	53.0	66.8	74.6 68.8	70.2	59.8	51.5 47.8	43.8	34.6	47.3
1889	35.8	26.0	38.2	47.8	60.3	69.2	69.4	67.4	62.8	48.5	44.6	38.0	50.7
1890	32.4 31.1	33.2	34·9 33.6	46.3	57.0 55.8	64.2 65.0	71.0 69.0	70.0	62.9	51.6	41.8	26.0 40.4	49.I 50.4
1892	28.3	28.4	32.9	48.4	55.9	69.6	73.0	70.2	62.5	52.7	41.2	29.9	49 • 4
1893	20.7	26.8	32.8	44.4	56.3 57.6	64.8	71.4	69.6 68.0	60.0 64.8	54.8	42.2 38.2	30.4	47.9
1895	30. I 28. 8	24.6	34.6	46.0	60,2	66.8	69.3	71.0	65.7	49.6	45.4	35.6	50.3 49.8
1896	24.9	28.7	32.0	47.2	60.3	66.1	69.3	70.7	62.2	50.2	46.5	30.4	49.2
1897	28.4 28.7	30.9	36.9 42.8	49.0	57.6	62.3 65.8	71.6	69.6	63.1 66.2	54.4	4I.4 42.0	34.0	49.9 50.8
1898	29.0	26.8	34.0	43.8 48.1	55.8	70.0	72.6	73.I 68.8	62.0	54.5	42.I	32.0 36.2	50.2
1900	30.0	29.3	34.0	48.6	55.2	68.6	73.8	71.1	65.0	56.6	44.6	34 • 4	50.8
1901	27.6	24.2	36.2 43.4	43.5	54.3	68.2	73·4 67·8	70.7 67.6	65.4	54.4	37·2 46.2	32·4 28·5	49.6
1902		31.4	44.4	47.8	57.6 58.5 60.8	59.8	71.4	65.0	64.4	53.9	40.0	29.0	49.4
1904	21.6	22.6	34.6	44.6	60.8	64.0	71.4	68.7	62.5	50.6	38.2	25.8	47.1
1905	25. I 35. 7	23.4	37.2	46.8	57.6 58.0	65.2	73.2 70.1	68.6 72.0	62.0 65.0	53.6 52.5	41.6	35.I 29.I	49. I 50.0
1907	27.0	21.6	37.9 38.6	43.4	52.4	65.1	72.4	69.6	64.4	49.8	43.2	37.2	48.7
1908	31.0	26.8	38.6	46.8	59.0	69.8	74 · I	69.4	05.8	55 • 4	43.6	33.3	51.2
1909	30.3	32.6	36.8 42.0	47.8 51.6	55.8	69.4	71·5 74·9	69.4 68.8	62.6 62.8	52.8 56.0	46.4	30.8	30.8
1911		27.0	35.4	46. I	62.4	65.6	77.1	69.0	62.6	52.6	41.8	39.4	50.9
1912	21.4	27.7	36.0	47 · 4 48 · 0	58.6	68.0	73.2	69.0	63.7	57 • 4	45.6	38.5	50.5
1913	39.2	27.7	42.4 36.7	45.3	55.2 60.4	67.5	73.8 68.6	70.8 70.4	64.6	56.4 57.0	42.7	37.8	52.3 49.7
1915		33.2	35.8	45·3 50.8	56.6	63.9	70. I	69.1	66.8	55.7	45.4	34.2	51.2
1916	33.0	25.5 25.8	30.6	45.6	58.6	62.6	72.6	71.8	65.0	55.5	42.6 39·4	32.6	49.7
1917	30.2	26.9	37.2	44.0	50.7 63.3		73.3	70.4	61.2	51.9	45.0	23.7	47·9 49·8
1919	33.2	32.6	36.7 40.8	40.9	59.1	63.9	74.0	70·4 68.8	63.9	55. I 59.8	42.8	34 7 28.7	51.1
1920	21.0	27.6	39.2 46.2	45·0 51.8	54·6 58.0	65.8	72·4 73·2	72.0 69.8	65.2	59.8 55.2	41.7	35.6	50.0
1921	32.I 27.2	32.6	39.8	48.7	61.4	68.6	72.0	70.4	65.2	55.1	43.8	31.4 30.9	52·4 51·3
1923	27.0	23.4	33.9	48.2	57.6	69.3	70.0	69.4	64.2	55·5 54.6	44.6	40.4	50.3
1924	31.9 27.2	26.6 38.0	37 · 4 43 · 0	47.2 49.8	56.2 57.4	66.6 <b>7</b> 0.9	73.8	71.8	62.2	54.6 49·3	44.6 43.6	31.1	50.3 51.7
1925	31.0	27.8	34.2	44.8	56.0	64.3	70.5	70.4	62.4	53 • 4	44.2	33.6	49.0
1927	30.5	32.6	41.6	44.8 48.3 46.8	55.2	65.0	72.2	67.4	65.0	57.9	49.6	36.0	51.8
1928	33.0	29.6 31.7	37.0	40.8 47.1	55·4 61.0	65.0 68.4	73.2 72.6	73.6 69.3	62.4	56.6 53.2	44.8	38.5 32.6	51.3 51.4
1930	31.8	34 · I	38.3	47.6	59.4	72.4	72.6	70.5	69.4	53.0	45.0	33.2	52.3
1931	30.6	30.6	39.3	50.2	60.3	67.2	74.0	72.2	66.9	58.5	49.4	36.6	53.0
1932	38.8 37.8	30.6	35.6 35.7	47·4 46.5	61.6	66. <sub>4</sub>	70.8	74.0 71.8	65.2 65.8	57·I 52·7	42.8 38.3	38. I 26.8	52·4 50·9
1934	29.6	33·7 17·5	35·I	48.0	60.6	66.9	73.2	67.3	64.6	49.6	45.6	28.4	48.9
1935	23.2	27.8	38.4	45.2	55·5 60.6	65.5	72.6 71.1	70.7	61.4	53.8	45.4	27.1	48.9
1935		33.2	34.1	45.2 45.2	59.1	66.4	73.2	69.7 <b>74.6</b>	63.0	54·4 52.6	39·5 44·0	35.0 31.2	49·7 51.2
1938	37·4 28. o	30.6	39.1	45.2 48.7	55.8	67.2	71 8	73.6	62.2	56.0	46.4	34.0	51.1
M'ns	28.6	28.5	36.4	46.5	57 • 5	66.5	72. I	70.I	63.7	53.6	42.3	32.2	49.8

Note.—Bold-face figures indicate highest and lowest monthly means.

### SEASONAL SNOWFALL.

Years	Oct.	Nov.	Dec.	Jan,	Feb.	Mar.	Apr.	May	Season
1871-2	o	T.	12.3	3.4	11.3	17.3	0	0	44.3
1871-2. 1872-3. 1873-4. 1874-5. 1875-6. 1876-7. 1877-8. 1878-9. 1879-0. 1880-1.	0	0.3	23.7	11.6	8.3	5.2	T.	T.	49.1
1873-4	0	7.5 T.	13.7	20.3	22.7	3·9 27·3	28.3	0	96.4
1874-5	0	Ť.	1.1	0.5	5.4	3.0	6.3 T.	0	50.0
1876-7	0	0.3 T.	9.0	17.5	5.4 T.	15.5 T.	T.	0	42.3
1877-8	T.		0.8	14.3	12.6		0	0	27.7
1878-9	0	0.3	1.2	18.2	11.9	7.8	4.0	0	43.4
1879-0	0	6.0	18.6	3.2	9.0	15.0 3.1	4.2	0	54.2
1881-2	0	1.5	19.2 T'.	15.4	17.9	5.6	4.2	0	56.8
1882-3	0	10.0	6.0	9.6	9.0	4.3	T	0	38.9
1881-2 1882-3 1883-4 1884-5 1885-6	0	T.	24.4	11.9	12.5	7.7	9.5 T.	0	66.0
1884-5	0.5	4.8	2.3	3.9	3.3	9.5	T.	0	24.3
1885-6	0	0.5 T.	5.5	21.5	12.0	4.5	T.	0	36.0
1887-8	0	Ť.	6.5	13.1	9.6	11.5	13.0 T.	T.	73.0
1888-9	0	4.8 T.	6.5 T.	4.5	7.5	2.2	0	0	19.0
1889-0	0	T.	4.0	8.5	6.3	20.3	0	0	39.1
1890-1	T.	T.	14.5 T.	14.8	13.8	16.2	T.	0	59.3
1891-2	0	3.0	2,0	14.6	35.3		7.0	0	43.5
1884-5   1885-6   1886-7   1887-8   1888-9   1889-0   1899-1   1891-2   1892-3   1892-4   1894-5   1895-6   1896-7   1897-8   1896-7   1897-8   1898-9   1900-1   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1901-2   1	0	0.4	18.5	15.0	21.6	4.5 T.	7.9 8.5	0	64.0
1804-5	0	6.7 T.	13.5	13.9	8.8	3.8	0.5	0	47.2
1895-6	0	T.	5.2 8.6	9.5	9.5	14.5	0.2	0	38.9
1896-7	0	2,2		18.2	10.9	3.3	T.	0	43.2
1897-8	0	8.1	7.8	16.3	11.5	0.0	2.2 T.	0	51.9 71.1
1898-9	T.	0.1	7.7 T.	8.3	9.0	7.6	0	T.	25.0
1000-1	0	0. I	0.8	8.3 7.8	8.8	9·3 7.6 T.	0	0	17.5
1901-2	0	0	12.6	II.O	13.0	7.5	T.	0	44.1
1902-3	T.	T.	22.8	4.2	14.7	0.3	T.	0	42.0
1903-4	T.	T.	10.6	35.7	8.0	8.9 3.6	т.4	0	73.I
1899-0. 1900-1. 1901-2. 1902-3. 1903-4. 1904-5. 1905-6. 1906-7. 1906-7. 1908-9. 1909-0. 1910-1. 1911-2. 1912-3. 1913-4. 1914-5. 1915-6. 1916-7. 1917-8.	0	Ť.	3.5	6.1	6.1	21.9	T.	0	44·9 37.6
1905-7	0	I.1	15.5	16.1	25.5	6.6	3.1	Т.	67.9
1907-8	0	0	7.0	4.3	9.3	4.8	0.8	0	26.2
1908-9	o T.	T. T.	3.5	11.2	2.3	3.1	0	0	20. I
1909-0	0	1. 1.4	8.2	0.7	12.6	0.2 3.I	7.7	0	37.0
1910-1	0	0.3	3.7	17.8	0.2	9.1	0.5	0	31.6
1012-3	0	0.3 T.	9.2	0.3	7.7	0.5	1.4	0	19.4
1913-4	0.4	T.	0.9	10.3	20.6	5.2 T.	2.0	0	39.4
1914-5	T.	T.	4.1	7.0	5.1		6.1	0	22.3
1915-0	0	0.2	6.7 9.5	4.8	30.3 8.9	33.0	4.2 9.1	о Т.	79.2
1017-8	o	2.2	7.0	13.8	5.7	12.8	4.2	0	45.7
1918–9	0	T.	7.0	4.I	6.2	2.4	4. 2 T.	0	21.1
	0	0.2	2.9	24.8	32.5	II.O	2.0	T.	73 - 4
1920-1 1921-2	0	1.8	5.5	3.6	23.2	T.	T.	0	34.1
1921-2	0	0.0	4.4	28.0	15.5	10.1	3.3 T.	0	37.6 68.5
1921-2 1923-3 1923-4 1924-5 1926-7 1926-7 1927-8 1928-9 1929-0	0	o.9 T.	3.0	8.5	10.4	7.4	3.0	0	32.3
1924-5	0	o. 5 T.	0, 2	20.7	10.4 T.	7.4 T.	3.0 T.	0	21.4
1925-6	Т.	T.	0.5	7.4	27.6	2.8	Т.	0	38.3
1926-7	0	Т.	24. 2 T	16. I 5. I	19.2	o. 6 6. 5	0. 2 T.	0	60.3
1927-0	T.	0.5 1.4	4.6	13.5	21.4	4.0	0.6	0	45.5
1929-0	0	3.0	10.6	7.7	9.5	0.6	T.	0	31.4
1930-1		O.I	7.7	11.7	14.0	7.3 5.8	T. T.	0	40.8
1931-2	0	T.	1.4	6.2	10.8	5.8	T.	0	24.2
1932-3	0	T. 2.9	8.6	0.8	20.6 32.9	5.1	5.0 T.	0	40.6 62.7
1933-4	T.	T.	1.6	26.7	13.1	2.1	1.9	0	45.4
1934 3	0	1.0	0.3	12.7	12.6	2.9	T.	o	29.5 W
1936-7	0	4.4	0.7	2.0	T.	1.9	T. T.	0	45.7
1930-1 1931-2 1932-3 1933-4 1934-5 1935-6 1936-7 1937-8	0	0.3	4.6	29.6	10.0	0.3	0.9	0	
1938–9	0	10.0	1.9		• • • • • •	• • • • • •		•••••	•••••
Means	T.	1.6	7.7	11.7	12.8	7.3	2.1	T.	43.2
212000011111111111111111111111111111111						,.5			43.2

## Hours of Sunshine

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1893 1894 1895 1896 1897 1898 1900 1901 1902 1903 1905 1906 1907 1908 1910 1911 1911 1912 1913 1914 1915 1918 1919 1922 1923 1924 1925 1926 1927 1928 1927 1928 1931 1933 1934 1933 1934 1935 2 Aver. age	135 143 155 144 185 156 164 185 152 149 150 160 160 160 160 160 160 160 160 160 16	161 159 218 167 159 142 160 160 170 174 188 192 203 141 186 155 171 141 1202 203 182 166 144 171 170 183 193 194 195 196 196 197 197 197 197 197 197 197 197 197 197	2211 2222 215 208 165 194 163 237 158 287 203 192 192 224 223 259 238 238 193 242 248 248 259 228 248 249 240 240 259 228 240 240 259 260 270 270 270 270 270 270 270 270 270 27	212 208 202 226 227 174 406 175 261 254 254 254 236 800 204 254 237 238 248 257 261 261 274 275 284 286 286 286 287 287 287 287 287 287 287 287 287 287	219 260 287 263 196 198 292 232 211 298 307 211 267 223 233 233 291 211 267 272 229 274 211 272 229 274 211 252 288 302 271 271 288 282 293 294 295 295 295 295 295 295 295 295	2222 286 254 262 268 278 323 3111 332 295 183 366 306 306 306 307 307 308 308 308 308 308 308 308 308 308 308	289 340 253 235 252 220 252 220 252 267 316 320 277 319 289 386 314 338 228 386 271 387 387 387 388 387 387 388 388 388 388	241 275 289 262 262 220 261 2210 261 223 304 249 255 312 255 301 287 264 282 281 281 287 264 284 284 284 284 284 284 284 284 285 284 284 284 285 286 286 286 286 286 286 286 286 286 286	2311 2316 2252 258 206 216 225 218 219 229 229 244 224 224 224 224 227 267 267 275 267 275 267 275 275 275 275 275 275 275 275 275 27	219 165 208 132 230 171 150 146 236 218 24 173 219 206 210 175 210 226 90 200 232 211 201 214 201 215 216 217 217 218 218 218 218 218 218 218 218 218 218	184 143 110 119 126 164 120 180 181 101 171 179 130 166 161 171 170 150 160 160 160 160 160 160 160 160 160 16	130 148 123 184 182 153 180 142 121 142 168 81 177 127 135 160 140 122 138 167 112 110 126 138 167 171 181 181 181 181 181 181 181 181 18	25566 2557 2412 2370 2316 2316 22652 2527 2700 2649 2479 2763 2763 2763 2763 2527 2763 2629 2629 2629 2629 2629 2629 2639 263
Pos- sible	295	†297	371	401	452	455	461	429	374	343	295	284	4457

<sup>†</sup> Leap years not considered.

## EXTREMES OF BAROMETRIC PRESSURE, 1872-1938 Sea Level Pressure

			P	RESSUR	EΕ		-
MONTH	Aver- age	Maxi- mum	Year	Day	Mini- mum	Year	Day
January February March April May June July August September October November December	30. 05 30. 00 29. 99 29. 97 29. 98 29. 97 29. 95 30. 01 30. 08 30. 06 30. 02 30. 02	31. 00 31. 03 30. 96 30. 72 30. 63 30. 57 30. 51 30. 48 30. 65 30. 75 30. 87 30. 96	1920 1920 1904 1901 1911 1936 1884 1892 1934 1888 1879 1932 1887	31 1 5 12 22 15 7 31 7 3 28	28. 67 28. 69 28. 45 28. 86 29. 11 29. 26 29. 21 29. 26 29. 29 28. 97 28. 73 28. 80	1913 1895 1932 1907 1929 1923 1932 1932 1934 1938 1925 1873 1915	3 8 7 9 3 27 2 26 21 25 18 14
Average or Extremes	30.01	31.03	1920	Feb. 1	28. 45	1932	Mar. 7

## Maximum Amounts of Precipitation

Month	5 mi	n's	10 m	in's	15 m	in's	30 m	in's	ı ho	ur	2 ho	urs	24 hours	
Month	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.
Jan.	.15	1936	.25	1936	.29	1936	. 40	1936	. 57	1919	.81	1919	3, 25	1881
Febr.	. 10	*1926		*1918		1920	. 33	1920		1920		1920		1886
Mar.	. 15	1913		1913		1913	.39	1913		*1932		1932		1877
April	. 13	1935		1921	. 24	1920	. 31	1920		1931	. 78	*1931		1921
May	.55	1932		1932	. 63	1932	. 65	1932	.69	1926		1926		1920
June	. 42	1925	.72	1905	. 75	1905	. 90	1925	1.07	1922	1.28	1922	5.35	1875
July	.50	1927	.67	1916	. 85	1916	1.'33	1916	1.62	1921	2.45	1915	6.04	1921
Aug.	. 55	1908	. 91	1908	1. 12	1908	1.45	1908	1. 80	1901	2.27	1917	4.99	1879
Sept.	. 25	1902	. 43	1927	. 62	*1927	1.01	1911	1.10	1904	1.74	1904	5. 63	1933
Oct.	.34	1928	. 54	1928	. 67	1928	. 86	1906		1906	1.74	1906	4.92	1895
Nov.	. 21	1925	*.31	1932	. 39	1927	*.62	1932	. 83	1932	.94	1927	5.43	1876
Dec.	. 15	1937	. 21	1937	.26	1937	. 45	1937	.81	1937	1.47	1937	3.36	1937
High-														
est	. 55	1908	.91	1908	1.12	1908	1.45	1908	1.80	1901	2.45	1915	6.04	1921

<sup>\*\* 1871</sup> to 1937, other data 1901 to 1937. 
\* Several occurrences.

## MONTHLY AND ANNUAL PRECIPITATION.

	MONINEL AND ANNUAL INCESTITATION.												
Year.	Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An'l.
1818	2.64	3.49	4.05	6.15	5.96	3.47	4.08	0.46	7.81	2.11	1.91	0.86	42.99
1819	0.70	2.27	6.21	3.74	3.06	3.56	2.02	4.38	5.29	1.40	I. 22	1.63	35.48
1820	3.12	4.25	4.90	4.90	5.08	3.42	2.35	5.15	2·43 4·73	5.39	3.00	1.93	44.18
1822	1.20	2.34	2.02	2.99	0.78	3.54	4.32	1.20	2.15	2.53	2.58	1.46	36.89 27.20
1823	3.00	4.57	7.72	2.21	6.40	0.93	5.74	1.98	1.95	3.95	I.92	6.93	47.30
1824	3.95	5.99	1.81	4.72	1.43	1.60	0.88	3.68	6.43	1.01	1.72	2.80	36.02
1825	2.79	3.43	4.70	0.37	1.36	4.77	1.24	5.62	2.66	3.21	0.81	4.38	35.34
1826	2.55	1.48	3.81	1.50	0.25	3.85	2.90	12.10	3.03	3.80	2.31	3.56	41.14
1827	3.92	2.97	2.51	4.75	5.34	2.56	2.59	4.88	4.81	5.28	5.71	3.59	48.91
1828	2.15	2.79	1.84	2.00	4.67	1.59	4.58	0.37	3.82	2.79	5.55	0.26	32.41
1829	4.93	5.62	4.30	3.45	2.71	1.64	6.98	4.95	2.62 5.65	1.65	5.74	2,26	46.85
1830	2.35	3.68	3.51	6.97	3·93 3·65	3.46	4.90 5.53	5.57	3.83	2.38	5·32 3.20	5.96	42.95
1832	4.44	3.74	2.65	5.56	7.27	0.50	3.41	6.14	2.07	2.46	3.57	4.85	46.69
1833	2.96	2.53	2.71	2.30	1.03	3.23	2.01	0.82	2.88	6.00	5.53	5.86	37.86
1834	1.39	1.13	0.96	2.93	6.33	3.09	7.71	2.47	3.71	4.62	2.90	2.36	39.60
1835	3.25 8.84	1.37	4.27	4.54	2.07	2.74	9.07	2.89	1.31	1.87	2.08	2.40	37.86
1836		3.57	2.90	1.58	1.85	4.33	2.12	1.53	0.54	4.04	5.43	4.13	40.86
1837	4.10	4.14	3.02	3.07	5.79	2.98	1.80	1.67	0.56	1.58	2.35	2.46	33.52
183S	3.07	2.77	3.09	2.62	3.32	2.55	1,20	4.26	9.87	5.02	3.95	0.80	42.52
1839	0.98	3. II 2.57	1.18	7.73	4.27 2.23	2.25	3·32 2·93	5.70	2.12	2.50 4.48	11.63	6.35	49.16
1841	6.00	1.60	3.50	4.60 8.82	I.Q0	1.95	2.10	4.20	2.86	3.80	4.55	5.77	47.05
1842	0.80	3.20	3.35	3.50	2.90	5.30	1.82	4.44	3.25	0.80	4.45	5.30	39.11
1843	2.20	6.08	6.17	3.88 0.20	1.60	4 61	2.15	6.88	0.98	4.82	3.40	3.92	46.69
1844	3.68	2.42	6.00		2.72	1.40	2.17	2.62	3.53	5.80	3.15	3.85	37.54
1845	4.58	4.25	3.83	1.23	2.82	2.05	3.28	1.82	2.23	4.00	10.25	5.98	46.32
1846	3.12	2.95	2.73	1.23	2.02	2.25	2.51	1.80	1.30	1.35	4.17	4.52	29.95
1847	3.28	4.70	4.77	2,20	2.03	4.09	2.65	6.45	6.64	1.05	5.12	3.95	46.93
1848	0.35	3.90	4.05 7.35	0.90	6.30	I.73 I.45	0.85	3.10 6.25	3.55 1.25	5.10	2.25	5.95 4.05	40.90
1850	4.59	2.52	5.32	4.82	6.63	2.77	2.70	5.30	7.15	2.10	3.32	6.76	53.98
1851	1.30	4.20	3.88	9.37	3.31	1.80	3.09	1.27	3.50	4.43	5.51	2.65	44.31
1852	4.85	2.85	4.45	10.18	1.95	2.35	3.28	7.63	1.65	2,19	3.47	3.09	47.94
1853	2.44	5.30	2 27	3.78	5.63	0.30	3.64	9 40	3.80	3.92	4.43	3.95	48.86
1854	2.91	4.87	2.84	6.63	4.33	2.47	3.70	0.58	3.86	2.08	6.80	4.64	45.71
1855	7.22	4.67	1.18	4.28	1.20	3.09	4.15	1.46	1.13	4.61	5.27	5.93	44.19
1856	5.32	0.80	1.33	4.37 10.83	7.10	2.90	4.02 5·53	7.18	4.90 2.56	2.70 4.50	3.33	4.28 5.26	52.16
1857	5.36 3.28	2.45	3.09 2.18	5.18	5·57 3.89	8.09	4.56	7.03	5.02	3.03	3.38	4.73	52.67
1859	5.93	4.05	7.64	3.36	3.63	7.89	1.58	4.72	4.40	3.28	3.75	6.47	56.70
1860	1.80	3.85	2.19	1.73	2.35	8.01	5.90	4.30	7.35	2,66	5.37	5.86	51.47
1861	6.04	3.57	7.48	5.89	2.97	3.64	2.76	6.04	1.77	2.66	4.90	2.35	50.06
1862	8.30	3.29	4.70	1.97	2.70	6.78	7.33 12.38	4.20	5.61	4.85	8.32	3.01	61.06
1863	4.51	4.54	6.42	9.08	2.82	2.56		5.64	3.12	3.83	6.48	6.34	67.72
1864	3.87	1.43	11.75	4.72	3.31	1.47	1.90	4.17	2.60	4.80	4.00	5.28	49.30
1865	4.47	5.08	4.83	2.57	6.90	2.83	4.26	3.87	0.62	2.72	4.46	4.18	50.70
1866	3.73	5.28	4·70 6.12	2.03	5.04 4.II	3.41	5.42	10.78	5.90	6.76	3.74	2.48	55.64
	5.05	0.33		3-	1	1	1			1			100

## MONTHLY AND ANNUAL PRECIPITATION-Continued.

Mar.   Jan.   Jan.   Jan.   Jan.   Jan.   Jan.   Jan.   June.   June.													
Year.	Jan.	Feb	Mar.	Apr	May	June.	July.	Aug	Sept.	Oct.	Nov	Dec.	An'
1868	6.09	1.88	5.04		10.38	3.79	1.10	7.53	11.95	1.78	5.31	2.32	64.11
1869	4.03	9.98	8.74	2.05	6.88	4 • 44	3.30	2.19	5.18	6.71	3.74	9.04	66.28
1870	8.16	7.03 2.63	4.88	8.42 3.79	2.58 4.34	7·59 5·55	4.0I 3.22	3.08	0.67	6.80 5.88	6.42	3.62	59·73 45.06
1872	2.11	2.31	4.05	1.31	3.29	4.84	4.00	10.68	6.04	4.85	3.66	3.09	50.23
1873	5.76	3.21	3.76	3.03	5.16	0.54	3.84	6.21	2.91	5.33	8.34	5.64	54.53
1874 -	4.32	3.41	1.60	7.97	3·71 3·76	3·94 7·25	3.47	6.67 3.50	2.05	1.39	2.85	2.14	43.52
1875	3.68	3.74	5.04 7.19	4.92 3.61	2.70	1.72	3·93 5·86	1.23	3.12	4·99 1.66	5.47	0.75 3.71	50.15 48.96
1877	3.33	4·54 0·45	9.79	4.19	3.38	3.21	2.27	4.49	0.60	8.84	9.62	I.32	51.49
1878	7.00	4.40	5.91	6.14	1.03	2.28	4.58	7.66	3.47	6.76	8.94	6.76	65.53
1879	2.79 3.7 <sup>2</sup>	4.35	3.90 3.25	6.58	0.97	0.75	3.09 6.86	2.90	1.84 2.36	3.15	2.97	3.42	44·57 37·30
1851	7.21	4.89	9.86	1.66	4.16	7.79	2.96	1.23	2.50	2.84	3.73	3.80	52.63
1882	3.65	4.77	3.35	2.50	6.05	1.03	3.91	1.46	10.93	2.29	I.20	2.65	43.82
1883	3·59 6·27	2.74	2.33	2.83 4.76	5.11	2.07	2.73	5.01	1.50	6.40 3.17	2.08	3.71	35.48
1885	5.33	5.74	4.56	3.30	3·3¹ 4·26	4.01 3.70	4.25 I.44	7.64	1.70	5.71	3.03	4.46 2.09	49.18
1886	7.08	7.04	3.20	1.70	3.08	1.34	1.81	3.64	2.73	3.27	3.59	3.66	42.14
1887	4.86	3.69	3.86	2.62	1.67	1.98	3.59	3.05	0.97	2.53	2.22	2.71	33.75
1885	2.26	2.36	3·32 1.19	3.07	5. 20 4.15	2.69	1.79 5.80	6.53 3.95	6.77 3.19	3·58 3·31	4.97 4.91	4.38 1.83	45.89
1890	2.00	2.29	5.88	2.29	4.48	2.21	1.93	2.70	5.04	5.63	0.97	3.72	39.14
1891	4.39	3.66	3.94	1.71	1.56	3.06	3.73	3.87	2.29	5.56	2.35	3.58	39.70
1892	4.62 2.56	2. I 5 6. 22	3.91	0.93	5.15	3.05	2.56	6.46	1.90	2.31	4.45 1.83	5.16	37.02
1893	3.01	3. i 5	1.01	3.13	5.23	0.80	1.72 3.09	3.03	1.59 2.14	5.11	2.10	4.28	36.62
1895	3.79	1.11	2.72	3.65	2.71	1.73	2.98	3.24	1.53	5.11	3.10	2.45	40.17
1896	2.25	3.94	5.41	1.56	1.68	2.71	2.90	2.15	6.40	3.15	3.70	1.70	37.55
1897	3.16	2.12 4.81	2.79 1.82	3. 17 6.39	4.00	4.46 1.60	4.22	3.95 6.38	2.38	0.4I 7.17	6.19 5.32	3.92	49.86
.1899	4.19	3.03	5.95	1.29	4.33 0.81	2.86	2.52	2.52	5.09	2.40	2.51	1.52	34.69
1900	4.20	0.83	4.60	1.90	5.07	1.85	2.69	2.46	4.62	3.41	4.17	2.25	44.05
1901	1.56	0.66	6.58	7.43	6.31	1.31	5.20	3.25	2.50	3.02	2.41	8.49	48.72
1902	3.43	3.90	5.29	4.43	0.32	7.19	2.88	2.20 3.33	2.43	4.36	1.09	4.48	33·93 41·97
1904	4.80	2.49	2.43	9.14	3.38	2.06	1.23	2.19	5.57	2.13	1.70	2.52	39.64
1905	4.09	1.59 2.66	2.25	2.14	1.47	5.23	1.00	3.39	5.10	0.82	1.77	3.23	32, 08
1906	2.96	1.88	5·45 1·66	2.15	3.12	2.57 2.56	5.38	1.58	2.64 7.43	3.88	6.02	3.96 4.31	40.69 37.56
1907	2.47	2.96	2.97	1.70	3.78	1.08	3.17	4.35	0.68	3.70	0.74	2.47	30.07
1909	3.94	4.71	3.28	3.92	2.33	4.45	0.97	3 - 55	5.15	1.07	4.11	3.19	40.67
1910	4.25	3.44	1.25	2.22	1.02	4.89	4.65	0.98	2.14	2.27	3.75	2.10	28.33
1911	2.87	2.85	2.95 4.18	3.07	0.35	0.27	5.16	1.94	2.95	1.00	4.29 2.61	3.07 5.36	35.78 34.55
1913	2.38	2.99	4.81	4.77 5.87	3.22	0.64	2.69	2.86	2.51	6.04	2.15	3.05	38.11
1914	3.26	3.07	4.16 T.	5.87	2.78	I.40	2.64	3.20	0.21	1.54	2.72	3.46	34.31
1915	6.33	3·47 5.18	3.20	1.86	2.83	I.39 5.04	8.85 5.67	5.63	0.69	2.82	1.67	3.94	38.76
	2.82	2.67	3.73	2.72	4.45	4.05	1.10	7.06	1.91	5.33	0.59	2.56	37.36 38.99
1917	3.11	2.30	3.19	3.08	1.99	1.94	2.64	1.56	9.19	0.99	1.20	3.21	34.40
1919	3.62	2.66	4.11	2.33	4.25 5.26	1.08	4.63	5.07	5.83	2.13	5.36	1.63	42.70
1920	2.72	5.88	3.72 1.92	5.68	3.64	5·78 3·58	1.56	2.32 1.63	I.90 I.22	I.64 I.24	5.46	3.89	45.81
1922	1.41	2.64	4.35	2.48	5.34	3.58	2.63	4·75 1.86	3,66	1.97	0.84	3.01	41.13
1923	6.07	2.61	2.49	5.26	0.83	2.03	3.36	6.86	6.96	3. 37 0. 06	2.78	4.98	34.89
1924 1925	3.27	1.55	5.21	3.79	2.07	1.07	3.54	1.40	3.45	4.03	3.66	1.48	34.92 41.15
1926	2.53	5.56	2.91	1.73	3.31	1.33	6.06	3.91	1.08	3.58	4.07	3.96	40.03
1927	2.67	3.28	1.19	1.36	2.50	2.43	4.77	6.73	2.43	3.77 2.88	4.71 1.85	5.23	41.07
1928	1.66	2.66	1.56	4.68	3.08	5.56	1.35	2.45	0.76	2.88	3.01	2.61	37.60 37.19
1930	2.77	2,23	3.02	2.08	3.39	2.24	3.36	3.03	0.26	5.83	4.09	2.99	35.29
1931	4.09	4.21	4.66	3.12	4.51	9.13	2.43	4.45	1.67	2.18	0.82	2.90	44. 17
1932		3.77	5.28	1.67	1.63	2.05 I.22	2.10	4.24	4.50	7.18	5.24	1.78	41.65
1933		4.45	4.04	7·37 3.21	1.56	3.11	1.25	3.41	5.67	2 94	1.78	1.64	34.15
1935	6.13	3.26	1.52	4.77	1.35	5.07	1.10	2.14	2.69	0.34	3.91	0.66	32.94
1936		3.66	6.40	3.54	1.70	2.37	1.04	5.15	3.79	2.67	4.66	8.19	46.30
1937	3.93 4.91	1.31 2.38	3·57 2.42	5·34 3.22	2.52 4.42	3.47 6.30	9.46	4.97 3.31	3.69	3.95	2.89	5.09	43.67
M'ns M'ns	*3.63 †3.68	3.28	3·77 3·95	3·57 3·78	3.16	3.15	3·39 3·51	3.73 3.98	3.25 3.41	3.33 3.46	3·59 3.84	3.36 3.66	41.21
		3.4-	3.90	3.70	3.40	3.29	3.31	3.30	3.4.	3.40	3,04	3.00	43.33
										1			
	None	Rol	d food	d ficus	roc inc	lianto	great	oet an	d loos	t mor	+hlvr	and o	nnual

NOTE.—Bold-faced figures indicate greatest and least monthly and annual amounts. \* Computed from the Weather Bureau records of 68 yrs. † Averages 121 yrs.

From 1818 to 1822, Dr. Enoch Hale; from 1823 to 1865, Jonathan P. Hall; from 1866 to 1870, Superintendent of Sewers.

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## THE HURRICANE - SEPTEMBER 21, 1938.

On the evening of the 18th a storm center of tropical cyclonic type was located about 1000 miles to the east-southeastward of Miami, Florida; on the morning of the 20th the center was about 375 miles northeastward of Miami, and moving about northward. At 7:30 a.m. of the 21st the center was about 75 miles eastward of Cape Hatteras, moving north-northeastward about 35 to 40 miles per hour; at 10 a.m. it was off Cape Henry, and at 1:10 p.m. it was off Atlantic City, with a pressure reading of 28.99 inches, and at 2:15 p.m. it was off Sandy Hook, pressure 28.71. From Cape Henry to Sandy Hook, the advance was at a rate of about 65 miles per hour. The storm crossed central Long Island near Brentwood, moving nearly north, and passed slightly to the westward of New Haven at 3:50 p.m.; Hartford was passed, also slightly to the westward, at 4:17 p.m. Its course was then closely to the westward of the Connecticut River, passing Amherst at 5:06 p.m. Thereafter its track curved more and more to the northwestward, and the center passed Hanover, N. H. at 6:20 p. m.; Northfield, Vt, at 7:30 p. m. and Burlington at 8:00 p. m. The storm's forward advance was then retarding rapidly, and the center was diminishing in its depth of gradient. During the night it passed into western Quebec with diminished force and movement. The lowest pressure readings in New England were 28.11 at New Haven, 28.04 at Hartford, and 28.41 at Amherst. The rate of movement of the center from Sandy Hook to Burlington was nearly if not quite 60 miles per hour, so that the rate of advance from Cape Henry to Burlington was definitely more than 60 miles per hour. Low pressure readings, at several other points, New York City, 28.72; Bridgeport, 28.30; Danbury, 28.76; Worcester and Albany, 28.68; Rutland, Vt. 28.74; and Newport, Vt.

Boston was in the eastern quadrant of the storm, and the wind moved 53 miles from 4 p. m. to 5 p. m.; 68 miles from 5 p. m. to 6 p. m.; 57 miles from 6 p. m. to 7 p. m.; and 49 miles from 7 p. m. to 8 p. m. The highest 5-minutes movements in each of these hours, respectfully, were at the rates of 57, 73, 60, and 55 miles per hour. The fastest mile was at the rate of 87 miles per hour at 5:23 p.m. The resulting destruction from the wind in the vicinity of Boston was largely from falling trees and their branches, on electric wires. Chimneys, roofs, signs and plate-glass windows were severely damaged. The greatest prostration of service was that of electric power and telephone, many of which were not restored for ten days to two weeks. The stupendously tragic storm wave, which wrecked the "South Shore", had but little effect in Boston Harbor, although many small craft were destroyed by the wind. The torrential rains which came before the hurricane, in central and western parts of New England, caused but little primary effect in the neighborhood of Boston, but did terminate transportation by land from Boston to points beyond Fitchburg, Springfield, and Hartford. For nearly a week the only travel between Boston and New York City was by boat or plane. This was without question the most destructive storm in this region since that of September 22, 1815; and these two storms appear to have been of greatly similar type and force.

Daily Maximum Temperature, 1938

Da*e	January	February	March	April	Мау	June	July	August	September	October	November	December
1	37 38 38 37 38 41 41 40 28 27 22 28 27 22 30 30 30 16 25 32 33 36 42 42 42 42 42 42 42 42 43 43 44 43 44 43 44 43 44 44 45 46 46 46 46 46 46 46 46 46 46 46 46 46	26 29 48 45 38 50 35 47 47 47 27 26 38 43 34 26 33 49 40 33 37 41 38 34 35 37 47 41 38 38 40 38 40 40 40 40 40 40 40 40 40 40 40 40 40	39 56 47 28 44 47 22 39 33 34 40 40 39 37 50 38 39 37 59 58 66 61 78 46 40 40 44 47 47 46 46 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	68 50 46 47 43 43 43 440 42 48 49 50 77 77 51 56 63 74 49 65 67 77 77 77 77 77 77 77 77 77 77 77 77	68 62 60 66 68 65 66 68 65 66 69 69 62 74 60 60 63 69 69 69 60 60 60 60 60 60 60 60 60 60 60 60 60	777 744 738 677 779 779 779 779 784 688 80 755 773 667 677 778 85 82 82 88 88 89 79 79 77 85 77 77 85 77 77 77 77 77 77 77 77 77 77 77 77 77	71 79 69 84 77 83 87 90 78 86 87 91 86 85 85 89 75 66 71 72 82 83 86 75 87 99 97 97 97 97 97 97 97 97 97 97 97 97	84 90 92 92 93 90 99 90 99 83 77 76 66 86 86 86 86 86 87 77 77 78 83 72 73 75 75 75 76 83 77 77 78 83 77 77 77 78 78 78 78 78 78 78 78 78 78	82 65 74 81 72 69 66 66 62 65 73 71 79 70 75 72 69 66 65 77 70 70 75 70 65 88 75 77 70 70 70 70 70 70 70 70 70 70 70 70	62 57 57 61 72 55 52 60 63 64 78 83 79 62 65 65 61 72 73 60 64 65 65 65 64 64 55 64 64 64 65 65 64 64 64 64 65 65 66 66 66 66 66 66 66 66 66 66 66	59 60 55 60 77 77 74 64 65 61 56 65 61 54 42 42 42 54 65 66 45 50 60 54 43 44 42 42 45 45 45 45 45 45 45 45 45 45 45 45 45	43 26 41 57 57 49 51 47 40 45 41 40 44 44 43 35 36 35 32 32 32 32 34 30 40.0
	Daily Minimum Temperature, 1938											

Daily Minimum Temperature, 1938

Date	January	February	March	April	Мау	June	July	August	September	October	November	December
1	12 26 27 26 29 26 29 20 18 14 10 24 11 5 3 20 23 22 23 22 23 24 25 26 16 16 17 26 27 20 20 20 20 20 20 20 20 20 20 20 20 20	15 13 27 33 24 19 31 16 10 18 33 34 41 17 10 15 32 33 25 18 21 31 31 32 4 25 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7 39 9 8 25 26 22 23 25 22 23 25 22 23 33 22 26 26 26 35 36 40 40 44 42 42 39 39 39 39 39 39 39 39 39 39 39 39 39	43 37 35 32 29 25 30 30 28 44 43 44 43 44 44 44 44 44 44	43 49 44 41 45 447 45 46 48 48 47 45 46 48 48 47 45 55 54 56 50 47 47 47	48 49 60 55 55 57 61 56 58 57 69 64 57 56 53 54 57 69 60 66 64 70 69 69 67 67 67 68 68 68 68 68 68 68 68 68 68 68 68 68	58 62 56 57 63 64 67 66 63 63 67 68 68 69 68 68 69 68 68 67 68 68 68 68 68 68 68 68 68 68	70 73 75 74 76 76 71 73 64 62 62 65 73 70 68 65 66 66 63 66 64 61 69 69 69 69 60 60 60 60 60 60 60 60 60 60 60 60 60	60 56 54 55 55 50 53 51 47 53 61 58 59 53 53 56 57 62 60 64 55 55 64 76 62 64 64 64 64 64 64 64 64 64 64 64 64 64	48 44 46 46 46 46 88 89 47 46 57 57 52 52 57 50 53 53 55 49 44 40 50 40 40 40 40 40 40 40 40 40 40 40 40 40	35 45 48 47 51 62 61 58 43 40 41 448 50 36 33 32 41 34 13 41 13 12 21 25 38	17 13 17 41 32 42 42 41 37 43 42 43 43 42 35 31 17 29 21 17 32 29 29 21 19 28 28 28 28 22 29 11 14 14 15 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18
Mean	20.8	23. 1	30.9	40.2	47.8	58.4	64.2	65.2	54.2	48.6	38.4	27.9

Daily Precipitation, 1938

Day	January	February	March	April	May	June	July	August	September	October	November	December
1	* . 07 * . 22 * . 04 T. 81 * T.	* .03 * .04 * .05 * .02 * .32 * .01 * .11	* T. * T	.09 .03 * .01			.21 .08 T01 .0509 .7005	.02 .01	.01 T19 .27, 65 .36 .56 .10 .71 .50 .10 T19 .31	.01 .06 T. T. .05 .04 1.71 1.71	T05 .1510 * T1313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313131313	
Total	4.91	2.38	2.42	3. 22	4 42	6.30	9.46	3.31	6.00	2.43	2.89	2.80

T. indicates a trace. \*Wholly or partly snow.

Daily Cloudiness, 1938 [Daylight hours; scale 0 to 10]

[ Dayight nours; scale 0 to 10 ]												
Day	January	February	March	April	May	June	July	August	September	October	November	December
1	10 7 0 10 4 2 10 5 0 10 5 5 9 7 6 4 4 10 2 0 5 7 7 10 10 10 2 10 10 10 10 10 10 10 10 10 10 10 10 10	3 7 10 7 5 10 8 3 10 0 5 6 10 11 1 8 10 10 0 7 10 10 10 4 10 10 10 10	9 5 8 9 10 6 4 4 6 1 10 6 10 10 10 2 10 3 9 10 10 6 3 5 10 10 6 . 7	2 7 2 8 2 9 4 4 10 10 7 1 9 9 6 6 10 0 7 7 10 8 4 4 6 10 8 5 10 5 2 2 7 7 10 10 10 10 10 10 10 10 10 10 10 10 10	3 3 5 4 4 4 9 9 6 6 10 5 5 8 10 9 9 4 4 4 9 9 9 9 8 8 8 10 9 9 10 6 6 8	0 0 9 9 10 9 5 5 9 1 4 4 10 8 8 6 1 7 7 10 7 7 6 6 7 0 1 1 7 7 8 8 4 4 3 10 10 10 9 6 6	10 7 6 8 6 1 1 5 4 4 2 2 5 7 7 10 10 10 10 10 10 10 10 10 10 10 10 10	9 2 0 4 4 8 7 8 8 6 6 2 10 4 4 4 7 7 8 8 6 6 3 4 4 6 6 5 9 6 6 0 1 1 3 7 5 5 5	8 6 4 4 5 4 4 0 0 10 0 0 0 0 10 7 7 8 10 10 10 10 10 10 10 10 10 8 3 1 1 0 6 6 0 8 10	3 1 1 7 4 0 0 10 5 2 5 6 6 4 4 4 2 10 9 8 8 2 2 2 7 10 10 9 10 5 . 6 6 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6	0 3 9 5 4 4 10 5 8 8 2 2 0 7 7 3 10 10 10 10 10 7 7 9 8 8 3 9 6	0 3 8 1 1 10 10 14 9 10 10 10 10 10 10 10 10 10 10 10 10 10
mean	0.0	7.0	0.7	0.0	0. 8	0.1	7. 3	0.0	0.4	0.0	0.1	0. 4

Note.—Clear (0 to 3). Partly cloudy (4 to 7). Cloudy (8 to 10).

. S. DEPARTMENT OF AGRICULTURE WEATHER BUREAU

## ANNUAL METEOROLOGICAL SUMMARY

WITH COMPARATIVE DATA

1939

BOSTON, MASS.

COMPILED BY
G. H. NOYES

BOSTON, MASS.

Kintel Briefes Library DAST A HAM

Min. temp.

Max. temp.

Month.

er of days.

0° or below.

32° or below.

900 or above. 350 or below.

Dense fog.

Thunderstorms.

Snow (0.1 in. or more.)

THIRD FLOOR

0

0 0

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23

27

BOSTON, MASSACHUSETTS

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	Num	.(	With precipitati (0.0)	12	13	15	14	9	10	4	6	~	12	2	or.	112
			Cloudy.	19	17	17	20	12	10	00	Π	12	14	oc	18	166
			Partly cloudy.	00	4	5	00	14	14	21	14	»	œ	6	9	119
			Clear.	4	1~	6	2	5	9	2	9	10	6	13	~	80
			Gales (32 miles hour or over)	5	2	က	-	0	0	0	-	-	-	4	-	19
		st.	Date.	30	15	12	2	29	30	31	30	25	က	5	00	Nov.
SZ SZ	7	Highest,	Direction.	ne.	SW.	ne.	ю.	ne.	on	W.	nw.	sw.	ne.	ne.	uw.	ne.
MA	Wind.		Velocity.	43	47	42	34	28	28	25	32	34	37	99	41	56
TON,		.noite	Prevailing direc	nw.	W.	nw.	w.	ю.	ů	sw.	တ်	sw.	nw.	W	W.	A
YEAR 1939, BOSTON, MASS.		-9A	Average hourly, locity.	12.7	11.9	12.6	11.4	10.7	11.0	9.7	10.0	10.8	11.5	12.8	12.4	11.4
939	ne ne	pje.	Percent of possi	40	46	49	44	62	65	202	61	69	7	58	38	54
R 1	Sun- shine	·s	Number of hour	119	135	180	177	279	295	325	260	230	150	170	108	2428
EA			Snowfall.	7.5	4.7	16.5	0.5	0	0	0	0	0	0	1 0	6.5	36.4 2428
FOR Y	ation.		Date.	30-31	28- 1	12-13	17-18	21-22	14	14	20	26-27	30-31	2	2-3	Oct. 30-31
	Precipitation.	urs.	On 42 mi testes in 24 ho	1.06	0.81	1.77	1.25	0.56	0.70	0.37	0.56	0.33	3.17	1.01	1.03	3, 17
SUMMARY	Pı		Total.	2.18	3.79	5.23	4.54	1,29	2.70	0.75	2.14	1.01	4.77	1.14	2.91	32, 45
SU	Δe	÷ (-)	7:30 p. m.	62	7.5	64	29	89	99	67	7	7.5	65	53	62	99
	Relative	numianty (per cent)	nooN	59	69	63	09	25	09	51	61	99	53	47	55	:
	, B	nu (be	.m .s 08: 7	65	92	74	7.5	5.0	69	7.5	79	92	73	6-4	29	71
			Date.	27	17	11	13	-	18	ಣ	31	27	54	14	27	Jan. 27
		nes.	Lowest.	4	6	6	26	39	55	99	09	45	31	21	9	4
	Temperature.	Extremes.	Date.	10	20	9	22	28	21	œ	22	16	10	16	1	Sept.
	pera		Highest.	55	99	58	69	06	88	93	95	96	87	61	22	96
	Tem		Monthly.	27.8	32.2	33.2	43.6	₹ 99	65.6	72.3	73.8	64.5	54.2	40.8	33, 4	49.8
		Mean.	Minimim.	20.7	23.7	26.1	36.9	48.1	58.2	63.6	66.2	55.6	45.2	33.0	26.4	42.0

February . 40.6

January. .. | 35.0

Maximum.

June ..... 73.1

81.0

August .... 81.5 September 73.4

March.... 40.3 2

40.5

57.7

Year.. December.

November 48.5

October ... | 63.1

Elevation of instruments above ground: thermometers, 33 feet; raingage, 3 feet; anemometer 62 feet,

# COMPARATIVE DATA AND EXTREMES

[	1	Molod to of below	59	11-20000000 m	
	1	Minimum temp.	59	26 24 19 4 4 8 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	ys	Max. temp. 90°	53	000000042424000 0	ate.
	of da	Dense fog	38		ns d
	ber o	Thunderstorms	38	www32004500000   2	evio.
	Average number of days	Snow (trace or	31	11 10 10 10 10 10 10 10 10 10 10 10 10 1	Has occurred on previous date.
	age 1	Rain, .01 or more	09	125 125 125 125	o pa
	Aver	Cloudy	63	13 10 11 11 11 12 13 12 13 12 13	curr
	7	Partly cloudy	63	00 10 10 10 10 10 10 10 10 10 10 10 10 1	o St
		Clear	63	00000000000000000000000000000000000000	* Hg
-		Year	09	1886 1939 1877 1893 1903 1893 1893 1890 1930 1930 1930	1.
	q	Direction highest velocity	09	8	Less than 1.
	‡ Wind	Highest velocity	09	0.748884884 67 0.748888488 68	
	++	Prevailing direc- fioit	09	W W W W W W W W W W W W W W W W W W W	8
		Average hourly velocity	09	11.1.00.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	nsec
1	ine	Percent	45	25 4 4 8 8 8 4 8 8 8 8 8 8 8 8 8 8 8 8 8	not
	Sunshino	ruod IstoT	42	143 170 170 272 231 272 289 294 268 229 142 142 135	proper
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	Relative humidity per cent	Noon-local time	14	6 65 65 65 65 65 65 65 65 65 65 65 65 65	GO FO
	Rela hum per	8 a. m.	0#	21112 69 69 7112 72 73 74 74 75 75 75 75 75 75 75 75 75 75 75 75 75	tor 2
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	atio	Average snowfall	65	11.4 13.0 7.5 7.5 17. 0 0 0 0 1.5 7.9 7.9	100
	Precipitation	Year	65	1881 1886 1886 1921 1921 1921 1937 1879 1933 1876 1933 1876	od on o
	A	Greatest in 24 hours	65	6. 44 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	To The
		IsmtoX	20	60 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1000 to 1000 to Thompson 1098
		Zear	62	1882 1934 1872 1874 1882 1882 1884 1914 1914 1936 1835 1938	
		Absolute lowest	62	111 111 111 111 111 111 111 111	
	buro	TesT	62	1876 1930 1921 1928 1925 1911 1911 1911 1911 1911	
	perat	Absolute highest	62	70 68 83 83 83 89 97 104 104 102 90 78 69 69	
	Temperature	Ism10N	46	27.2 28.8 35.6 4.6.4 66.7 71.7 66.3 63.2 82.6 83.6 84.0 85.6 85.6 86.6 86.6 86.6 86.6 86.6 86.6	
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		vlisb egreeva mumixsm	59	83.6 8.6 8.6 8.6 8.6 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	
		Month	L'gth of	record years- Jan. Feb Feb April May July. July. July. October. Nov Dec	1

# Anemometer, 188 feet above ground: October 1933 to December 1935, anemometer 360 feet, record not used.

Monthly a	and Annual	Mean Tem	peratures
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These temperature records were made at the Astronomical Observatory of Har. vard College, which is located on Concord Avenue and Bond Street, Cambridge, Mass., about three miles from the Weather Bureau station in Boston, Mass.

## MISCELLANEOUS DATA FOR 1939.

Barometric Pressure (reduced to sea level).—Mean, 29.98 inches, 1015.2 millibars; highest, 30.64 inches, 1037.6 millibars; February 17; lowest, 29.14 inches, 986.8 millibars, January 22.

Temperature.—Greatest monthly range, 57°, February; least monthly range, 32°, August. Highest mean temperature of three consecutive days, 82°, July 7-9; lowest mean temperature of three consecutive days, 16°, January 25-27.

Precipitation.—Longest period without precipitation, 16 days, May 5-20; longest period with precipitation, 5 days, March 9-13. Greatest amount in 24 consecutive hours, 3.17 inches, October 30-31. Maximum amount in 5 minutes, 0.23 inch, May 28; 10 minutes, 0.40 inch, May 28; 15 minutes, 0.42 inch, May 28; 30 minutes, 0.43 inch, May 28; 1 hour, 0.43 inch, May 28.

Frost.—Last killing frost in spring, April 17. First killing frost in autumn, October 18.

Snow.—Greatest snowfall in 24 hours, 7.6 inches, March 12-13. Greatest depth of snow on ground, 14.2 inches, March 13. Last snow in spring occurred on April 12; first in autumn occurred on November 9.

Thunderstorms.—First thunderstorm occurred on January 22; last thunderstorm occurred on October 1.

Monthly and Annual Mean Temperatures

Year	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.	Oet.	Nov.	Dec	An'1
1871	26.0	28.6	41.5	47.0	57.9	65.9	70,8	71.7	59.3	54.0	36.6	27.9	48.9
1872	27.4	28.1	26.0	46.6	59.4	68.9	75.6	73.0	64.5	51.8	40.6	23.2	48.8
1873	25.1	26.3	33.9	45.0 38.8	56.8	67.3	72.9	69.8	62.8	53.5	33.4 41.6	32.0 31.3	48.2
1874	30.5	22.3	34.4	42.6	57.9	66.7	72.I	71.0	60.6	50.2	35.0	29.6	46.6
1876	30.7	27.4	33.4	43.9	54.6	66.7	74.0 71.1	70.2	59.9	48.2	41.4	22.2	47.9
1877 1878	30.7	34.2	34·9 39·6	44.2 48.2	55.0 56.5	66.8	71.1	72.2	65.2	52.0	44.2	36.4	50.1
1878	28.0	30.6	39.6		56.5	64.6	73.7	69.7	64.2	56.1	40.8	30.3	50.2
1879 1880	24.2 34.6	24.6 31.8	33.6	42.4 46.4	63.7	68.6	70.8	69.3	65.2	52.2	38.2	32.3	48.4
1881	22.0	27.9	37.2	43.6	56.6	61.7 66.8	70.2	71.4	67.6	54.4	43.6	39.0	50.3 49.6 48.8
1881 1882	26.0	30.4	37.2 36.0	42.8	50.6		73.2	71.5	64.0	55·4 47.7	39.0	30.4	48.8
1883	24.4	28.8	30.8	45.2	56.5	70.I	71.7	68.2	59.8	47.7	42.8	29.1	47.9
1834 1835	24 · I	31.2	34.2	43.8	54.8	67.2	71.8	69.7	66.9 60.1	52.6	41.4	33.8	49.0
1580.	25.8	26.6	33.3	48.6	56.8	63.2	71.2	68.2	63.1	52.0	43.2	32.7 28.4	48.4
1887	25.0	28.7	31.5	44.2	59.6	65.2	74.6	67.6	59.8	51.5 47.8	42.2	32.4	48.5
1888	20.1	28.3	32.2	42.6	53.0 60.3	66.8		70.2	59.8	47.8	43.8	34.6	47.3
1889	35.8	26.0	38.2	47.8	57.0	69.2	69.4	67.4	62.8	48.5	44.6	38.0 26.0	50.7
1890	32.4	32.0	34·9 33.6	48.0	55.8	65.0	69.0	70.0	66.7	51.6	41.4	40.4	49.I 50.4
1892	25.3	28.4	32.9	48.4	55.9	69.6	73.0	70.2	62.5	52.7	41.2	29.9	49.4
1893	20.7		32.8	44.4	56.3	64.8	71.4	69.6	60.0	54.8	42.2	30.4	47.9
1894	30.1	26.6	42.5	47.0	57.6	68.8	73.7	68.0	64.8	54.0	38.2	32.2	50.3
1895 1896	28.8	24.6 28.7	34.6	46.0	60.2	66.8	69.3	71.0	65.7	49.6	45.4	35.6 3°.4	49.5
1897	28.4	30.9	36.9	49.0	57.6	62.3	71.6	69.6	63.1	54.4	41.4	34.0	49.4
1897 1898	28.7	32.8	42.8	43.8	55.8	65.8	71.6 71.8	73.1	63.1 66.2	54.2	42.0	32.0	49.9 50.8
1899	29.0	26.8	34.0	48.I	57.8	70.0	72.6	68.8	62.0	54.5	42.I	36.2	50.2
1900	30.0	29.3	34.0	48.6	55.2	68.6	73.8	71.I 70.7	65.0	56.6	44.6	34 • 4	50.8
1901	26.6	24.2	43.4	43.5	54·3 57·6	64.3	73·4 67·8	67.6	65.4	54·4 53.6	37·2 46.2	32·4 28·5	49.0
1903	26.8	31.4	44.4	47.8	58.5	59.8	71.4	65.0	64.4	53.9	40.0	29.0	49.4
1904	21.6	22.6	34.6	44.6		64.0	71.4	68.7	62.5	50.6	38.2	25.8	47.I
1905	25.1	23.4	37.2	46.8	57.6	65.2	73.2	68.6	62.0	53.6	41.6	35.1	49. I
1906	35.7	29.7 21.6	32·4 37·9	47.2	58.0	65.1	70 · I 72 · 4	72.0 69.6	65.0	52.5 49.8	41.7	29 · I 37 · 2	50.0
1908	31.0	26.8	38.6	43·4 46.8	59.0	69.8	74. I	69.4	64.4 65.8	55.4	43.6	33.3	51.2
1909	30.3	32.6	36.8	47.8	55.8	69.4	71.5	69.4	62.6	52.8	46.4	33·3 30.8	50.5
1910	32.0	29.5	42.0	51.6	57 - 6	65.2	74.9	68.8	62.8	56.0	41.2	27.5	30.8
1911 1912	31.8	27.0	35·4 36.0	46. I	62.4 58.6	65.6 68.0	77.1 73.2	69.0	62.6	52.6 57.4	41.8	39 - 4	50.9
1913	39.2	27.7	42.4	47·4 48·0	55.2	67.5	73.8	70.8	62.0	56.4	46.5	38·5 37·8	50.5 52.3
1914	28.7	24.3	36.7 35.8	45.3	60.4	67.3	73.8 68.6	70.4	64.6	57.0	42.7	30.4	49.7
1915	33.0	33.2	35.8	50.8	56.6	63.9	70.I	69.1	66.8	55 - 7	45 • 4	34.2	51.2
1916	33.0	25.5 25.8	30.6	45.6	58.6	62.6	72.6	71.8 72.8	65.0	55.5	42.6	32.6	49.7
1917	21.0	26.9	36.7	41.0	63.3	63.9	73.3		60.2	51.9	39·4 45·0	23.7	47.9
1919	33.2	32.6	37.2 36.7 40.8	47.8 46.9	59.I	67.2	74.0	70.4 68.8	63.9		42.8	34 7 28.7	51.1
1920	21.0	27.6	39.2	45.0 51.8	54.6	65.8	72.4	72.0	65.2	55.1 59.8	41.7	35.6	50.0
1921	32.1	32.6	46.2	51.8	58.0	68.2 68.6	73.2	69.8	68.5	55.2	41.6	3I · 4	52.4
1922	27.2 27.0	32.0 23.4	39.8	48.7 48.2	57.6	69.3	72.0 70.0	70.4 69.4	65.2	55.5	43.8	30.9 40.4	51.3
1924	31.9	26.6	37 • 4	47.2	56.2	66.6	73.8	71.8	62.2	55·5 54.6	44.6	31.1	50.3
1925	27.2	38.0	43.0	49.8	57 - 4	70.9	72.4	71.2	64.0	49.3	43.6	33.6	51.7
192б		27.8	34.2	44.8	56.0	64.3	70.5	70.4	62.4	53 • 4	44.2	28.6	49.0
1927	30.6	32.6	41.6 37.0	46.8	55.2	65.0 65.0	72.2	67.4 73.6	65.0	57.9 56.6	49.6	36.0	51.8
1929		31.7	41.4	47.I	55·4 61.0	68.4	72.6	69.3	65.2	53.2	44.8	38.5 32.6	51.3 51.4
1930	31.8	34.1	38.3	47.6	59.4	72.4	72.6	70.5	69.4	53.0	45.0	33.2	52.3
1931	30.6	30.6	39.3	50.2	60.3	67.2 66.4	74.0	72.2	66.9	58.5	49.4	36.6	53.0
1932	38.8	30.6	35.6 35.7	47.4	60.2 61.6	69.6	72.8	74.0	65.2	57·I	42.8	38.1	52.4
1933	29.6	33.7 17.5		48.0	60.6	65.9	73.2	71.8	65.8	52.7	38.3	26.8 28.4	50.9 48.9
1935	23.2	27.8	35.1 38.4	45.2	55.5	65.5	72.6	70.7	61.4	53.8	45.4	27.1	48.9
1936	28.2	22.8	41.8	45.2	55·5 60.6	66.2	71.1	70.7 69.7	62.6	54.4	39.5	35.0	49.7
1937	37·4 28. 0	33.2	34.1	45.2	59.1	65.4	73.2	74.6	63.0	52.6	44.0	31.2	51.2
1939	27.8	30.0	39.I 33.2	43.6	55.8 56.4	67.2 65.6	71 8	73.6 73.8	62.2	56.0	46.4	34.0	51.1
	-				30.4			73.0		54.2	40.0	33.4	49.8
M'ns	28.6	28.5	36.4	46.4	57 - 5	66.6	72. I	70.2	63.6	53.6	42.5	32.2	49.8
Momm	D-1	3 6			,	'			- 1				

Note.-Bold-face figures indicate highest and lowest monthly means.

MAXIMUM TEMPERATURE FOR EACH DAY OF YEAR

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	ber	Year	100	1881	1922	1922	1898	1922	1910	1912	1879	1916	1919	1914	1928	1930	1923	1897	1897	1928	1908	1910	1929	1920	1920	1900	1900	1899	1899	1920	1927	1918	1918	1896
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1201	September	Max.	90	200	4 1	36	94	93	95	10.5	95	06	95	95	68		95	76	96	91	96	88	87	94	94	96	87	83	95	98	96	83	88	:
MEGMEGER	nst	Year	1101	1017	1000	1930	1928	1928	1931	1924	1916	1872	1896	1900	1907	1881	1918	1988	1928	1913	1884	1906	1937	1937	1880	1880	1898	1909	1900	1881	1877	1880	1881	1881
TO D	August	Max.	00	000	000	200	96	95	97	86	35	95	95	95	6	93	96	94	95	96	94	33	86	95	91	96	94	93	97	91	95	36	86.	76
7/01	ly	Year	1040	1011	1161	1911	1911	1919	1911	1883	1937	1912	1880	1911	1908	1894	1873	1873	1900	1900	1900	1878	1894	1926	1926	1918	1933	1882	1892	1882	1931	1931	1933	1917
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E EVOTE	ιy	Year	000	1090	1000	10/0	1880	1919	1930	1930	1895	1889	1896	1895	1908	1930	1908	1900	1932	1903	1936	1903	1933	1921	1921	1905	1936	1932	1880	1880	1931	1929	1929	1879
274	May	Max.	00	000	200	000	88	98	6	95	87	06	76	6	84	85	88	93	93	84	91	88	06	93	95	88	91	91	97	96	95	*94	96	 
CONTRACT	E	Year	1010	1016	1000	1097	1923	1928	1928	1929	1929	1921	1922	1887	1915	1896	1938	1896	9681	1918	1896	1914	1927	1923	1956	1908	1885	1897	1872	1935	1938	1903	1903	:
	April	Max.	1	2,40	15	7 2	7.7	82	85	25	84	1.1	85	75	89	8	79	8.5	13	73	83	87	68	22	78	85	£.		85	84	86	88	 	:
TEOOPT	March	Year	1000	1874	1014	10001	1880	1880	1894	1876	1878	1921	1878	1927	1905	1927	1927	1913	1935	1935	1934	1903	1921	1921	1929	1938	19.20	1910	1922	1914	1921	1910	1907	1939
	Ma	Max.	60	202	600	8	70	7.5	20	89	63	89	7.1	65	69	89	69	99	71	99	89	75	77	 E		20	75	78	- 62	74	73	76	7	2
	nary	Year	2101	1033	1000	1701	1914	1890	1909	1925	1933	1925	1898	1925	1925	1900	1884	1939	1910	1883	1880	1930	1930	1906	1912	1930	1930	1930	1911	1880	1903	1880	:	:
	February	Max.	Į.	25.	3 5	50	200	64	57	99	99	29	69	58	25	09	59	19	09	09	63	58	89	89	57	63	67	65	99	61	62	64	:	:
	January	Year	1040	1000	1030	1919	1932	1909	1913	1930	1930	1937	1929	1924	1913	1932	1932	1932	1890	1913	1915	1915	1907	1906	1916	1906	9061	1916	916	1916	1916	1887	1914	1913
	Janı	Max.	S.	5 8	38	70	09	09	62	63	64	64	53	61	19	63	69	65	22	59	09	19	28	89	99	89	9;	56	99	62	63	26	3	70
	Date	Danc		-10				2	9	7		6	10	11	12	13	14	15	16.	17	18.	19.	20	21	22	233	24	25	26	27	28.	29		21

\* Has occurred on previous dates also.

BOSTON, MASS.
MINIMUM TEMPERATURE FOR EACH DAY OF YEAR
RECORD EXTENDS FROM MARCH 1, 1872 TO DECEMBER 31, 1939

Min. Min. Min. Min. Min. Min. Min. Min.		Min.		Annual Contract of															-		TOWNS OF THE	2000	December	
1 0 0 4 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			Year	Min.	Year	Min.	Year	Min.	Year	Min. Y	Year	Min. Y	Year	Min. Y	Year	Min.	Year	Min.	Year	Min.	Year	Min.	Year	Бате
	20101	1	19.00	ī	1886	<u> </u>	1923	- 55	1880		923		28.8	_	168	- 05	1887	200	1888	98	1885	0	1875	-
	1809	- 15	1881	10	1886	9 5	1919	3 23	1874	_	284		883		676	65	1896		1899	97	1879	. 4	1876	03
	1904	12	1881	-	1938	23	1894	55	1882		15		914	_	1927	47	1893	35	1899	27	1875	0	1890	00
	1910		1886	» *	1938	51	1879	333	1911		381		914	_	006	: 29	1872	200	1888	51	1879	7	1906	4
	1910	10	1918	1	1872	=	1874	58	1907		168	_	983	_	205	2 3	9681	28	1881	17	1879	4	1926	20
	1896	9	1895	×	1872	20	1881	333	1891	_	305		879	_	282	43	288	33	1883	21	1879	σ.	1901	9
_	1896	2	1875	6	1872	22	1881	2000	1900		132	-	305	_	1885	3	1888	08	1883	23	1884	4	1906	7
	1878	-12	1934	1 00	1883	21	1888	38	1885	42 15	19:32	55	1909	52	1903	48	1903	36	1883	25	1921	1	1905	8
_	1887	-18	1934	6.	1885	24	1876	68	1917		123	_	606	_	6681	47	1883	23	1878	- 56	1887	ж 	1905	6
	1875	-5	1875	. 6.	1929	56	1917	37.	1905		381		890		016	41	1883	33	1925	*27	1933	ī	1902	. 10
	1893	-4	1899	6	1939	25	1909	33	1900		381	_	068	_	1879	100	1917	35	1881	24	1901	?	1876	11
	1886	-11	1914	1	1900	20	1874	833	1907		900		988		1913	43	1875	31	1876	52	1926	7	1934	12
	1914	-3	1161	က	1885	20	1874	38	1882	-	881	_	888	_	1905	45	11611	800	1875	14	1883	4	1898	13
	1914	13	1934	12	9681	.27	1923	37	1895		375	_	987	-	1885	40	1884	3	1875	16	1905	0	1898	14
	1920	-2	1875	*15	1932	30	1923	38	1882	-	484	_	929	_	1905	41	1913	31	1876	17	1933	7.	1874	15
_	1920	1	1888	10	1872	87.	1928	34	1936	-	303		884	_	0881	45	1899	98	1883	15	1933	_	1883	16
-4	1907	-11	1896	10	1916	56	1908	83	1885		97.0		892	_	0881	45	1887	22	1886	7	1924	<b>4</b> -	1919	17
	1904	0	9681	2	1885	56	1887	38	1882		07.0		881		8161	43	1875	*31	1939	14	1936	9-	1919	18
	1904	*	1936	2	1876	55	1875	38	1882		07.0		881	-	188.5	45	1929	58	1922	14	1936	-10	1875	19
_	1901	9	1916	10	1885	21	1897	0#	1892		918	_	068	_	1905	*42	1929	35	1900	15	1894	-11	1875	20
0	1888	0	1916	7	1885	5	1875	41	1907	_	918	_	890		1885	*40	1929	35	1922	10	1879	ī	1924	21
- 13	1888	2	1918	20	1885	56	1875	33	1894		381		068	_	1894	35	1904	35	1883	<u></u>	1879	-	1883	22
9-	1882	-3	1876	9	1934	30	1872	40	1882	-	325	-	934		988	 	1904	6;	1883	=	1880	-15	1888	23
- 13	1882	-7	1894	9	1874	58	1882	36	1882	_	132		868		878	 	1885	* *	1939	=	1880	0	1892	24
5	1935	9-	1894	10	1878	- 22	1892	9	1925		303	_	901	_	1880	33	1890	56	1879	==	1938	ж 	1872	25
0	1927	T	1928	18	1880	28	1919	33	1882	_	903		076		1885	34	1879	25	1879	*12	1938	7	1914	86
9-	1924	-4	1900	91	1873	£	1909	- 088 - 088	1915	_	397	_	876	-	088	9	1887	25	1936	20	1932	0	1914	27
- 5	1935	2	1907	=	1923	32	1882	43	1917	_	318	_	88-4		1885	83	1914	58	1936	=	1873	6	1872	28
9	1888	တ	1884	4	1923	55	1909	33	1905	_	916		880		8061	50 24	1914	92	1876	∞	1875	-17	1933	29
- 2	1873	:	:	10	1884	55	1874	35	1884		916		880		1915	98	1888	58	1928	-5	1875	-15	1933	30
∞  -	1920	:	:	15	1923	:	:	සි	1884		:		895	_	1912	:	:	27	1904	:	:	20	1917	.31

Has occurred on previous dates also.

## Maximum Amounts of Precipitation

	5 mi	in's	10 m	in's	15 m	in's	30 m	in's	ı ho	ur	2 ho	urs	24 ho	
Month	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.
Jan. Febr. Mar. April May June July Aug. Sept. Oct. Nov. Dec.	.15 .10 .15 .13 .55 .42 .50 .55 .25 .25 .34 .21	1936 *1926 1913 1936 1932 1925 1927 1908 1902 1928 1923 1937	.14 .23 .19 .62 .72	1936 *1918 1913 1921 1932 1905 1916 1908 1927 1928 1932 1937	.20 .26 .24 .63 .75 .85 1.12 .62 .67	1936 1920 1913 1920 1932 1905 1916 1908 *1927 1928 1927	.33 .39 .31 .65	1936 1920 1913 1920 1932 1925 1916 1908 1911 1906 1932 1937	. 49 . 54 . 50 . 69 1. 07 1. 62 1. 80 1. 10 1. 58	1919 1920 *1932 1931 1926 1922 1921 1901 1904 1906 1932 1937	.71 1.03 .78 .94 1.28 2.45 2.27 1.74	1919 1920 1932 *1931 1926 1922 1915 1917 1904 1906 1927	4. 45 3. 04 3. 19 3. 31 5. 35 6. 04 4. 99 5. 63 4. 92 5. 43	1881 1886 1877 1921 1920 1875 1921 1879 1933 1895 1876
High- est	. 55	1908	.91	1908	1.12	1908	1.45	1908	1.80	1901	2. 45	1915	6.04	1921

## MONTHLY AND ANNUAL PRECIPITATION.

						4							
Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An'l.
1 car.	Ja	F	Z	4	=	٦.	7	4	) ŭ	Ŏ	Z	Ä	Z
	1					(	1 .	l .		(	1	ſ	1
1818	2.64	3.49	4.05	6.15	5.96	3.47	4.08	0.46	7.81	2.11	1.91	0.86	42.99
1819	0.70	2.27	6.21	3.74	3.06 5.08	3.56	2.02	4·38 5·15	5.29	1.40	3.00	1.63	35.48
1820	3.12	4.25	4.90	4.90	4.84	2.79	2.35	1.58	4.73	5.39	3.12	1.93	36.8g
1822	1.29	2.34	2.02	2.99	0.78	3.54	4.32	1.20	2.15	2.53	2.58	1.46	27.29
1823	3.00	4.57	7.72	2.21	6.40	0.93	5.74	1.98	1.95	3.95	1.92	6.93	47.30
1824	3.95	5.99	1.81	4.72	1.43	1.60	0.88	3.68	6.43	1.01	1.72	2.80	36.02
1825	2.79	3.43	4.70	0.37	1.36	4.77	1.24	5.62	2.66	3.21	0.81	4.38	35.34
1826.	2.55	1.48	3.81	1.50	0.25	3.85	2.90	12.10	3.03	3.80	2.31	3.56	41.14
1827	3.92	2.97	1.84	4.75	5.34	2.56 I.59	2·59 4.58	4.88 0.37	4.81 3.82	5.28	5·71 5·55	3.59 0.26	48.91
1828 1829	2.15 4.93	2.79 5.62	4.30	3.45	2.71	1.64	6.98	4.95	2.62	1.65	5.74	2, 26	46.85
1830	2.36	1.63	3.51	1.21	3.93	3.46	4.90	2.64	5.65	2.38	5.32	5.96	42.95
1831	4.44	3.68	3.07	6.97	3.65	4.32	5.53	5.57	3.83	4.42	3.20	2.93	51.61
1832	4.47	3.74	2.65	5.56	7 - 27	0.50	3.41	6.14	2.07	2.46	3.57	4.85	46.69
1833	2.96	2.53	2.71	2.30	1.03	3.23	2.01	0.82	2.88	6.00	5.53	5.86	37.86
1834	1.39	1.13	0.96	2.93	6.33	3.09	7.71	2.47	3.71	4.62	2.90	2.36	39.60
1835	3·25 8.84	1.37	2.90	4·54 1.58	1.85	2.74 4-33	9.07	2.89 1.53	0.54	1.87	2.08 5.43	2.40 4.13	37.86 40.86
1836···	4.10	3.57	3.02	3.07	5.79	2.98	1.80	1.67	0.56	1.58	2.35	2.46	33.52
1838	3.07	2.77	3.09	2,62	3.32	2.55	I,20	4.26	9.87	5.02	3.95	0.80	42.52
1839	0.98	3.11	1.18	7.73	4.27	2.25	3.32	5.70	2.00	2.50	1.71	6.35	41.10
1840	3.12	2.57	4 - 55	4.60	2.23	2.78	2.93	4.00	2.12	4.48	11.63	4.15	49.16
1841	6.00	1.60	3.50	8.82	1.90	1.95	2.10	4.20	2.86	3.80	4.55	5.77	47.05
1842	0.80	3.20	3.35	3.50	2.90 1.60	5.30	1.82	6.83	3.25	0.80	4.45	5.30	39.11
1843	3.68	6.08	6.17	0.20	2.72	4 61	2.15	2.62	0.98 3.53	5.80	3.40	3.92 3.85	46.69
1845	4.58	4.25	3.83	1.23	2.82	2.05	3.28	1.82	2.23	4.00	10.25	5.98	46.32
1846	3.12	2.95	2.73	1.23	2.02	2.25	2.51	1.80	1.30	1.35	4.17	4.52	29.95
1847	3.28	4.70	4.77	2.20	2.03	4.09	2.65	6.45	6.64	1.05	5.12	3.95	46.93
1848	2.30	3.90	4.05	1.40	6.30	1.73	1.35	3.10 6.25	3.55	5.10	2.25	5.95	40.98
1849	0.35	1.15	7.35	0.90	3.10	1.45	0.85		1.25	8.10	5.50	4.05	40.30
1850	4.59	2.52	5.32 3.88	4.82	6.63	2.77 I.So	2.70	5.30	7.15	2.10	3.32	6.76	53.98
1851	1.30	4.20 2.85	4.45	9.37 10.18	3·3 <sup>I</sup>	2.35	3.09 3.28	7.63	3.50 1.65	4.43	5.5I 3.47	3.09	44.31
1853	2.44	5.30	2 27	3.78	5.63	0.30	3.64	9 40	3.80	3.92	4.43	3.95	48.86
1854	2.91	4.87	2.84	6.63	4.33	2.47	3.70	0.58	3.86	2.08	6.80	4.64	45.71
1855	7.22	4.67	1.18	4.28	1.20	3.09	4.15	1.46	1.13	4.61	5.27	5.93	44.19
1856	5.32	0.80	1.33	4-37	7.10	2.90	4.02	II.II	4.90	2.70	3.33	4.28	52.16
1857	5.36	2.45	3.09	10.83	5.57	2.02	5.53	7.18	2.56	4.50	2.52	5, 26	56.87
1858	3.28	2.30	2.18	5. 18	3.89	8.09 7.89	4.56 1.58	7.03	5.02	3.03 3.28	3.38 3.75	4.73 6.47	52.67 56.70
1859	5.93 1.89	4.05 3.85	7.64	3.36	2.35	8.01	5.90	4.72	7.35	2.66	5.37	5.86	51.47
1861	6.04	3.57	7.48	5.89	2.97	3.64	2.76	6.04	1.77	2.66	4.90	2.35	50.06
1862	8.30	3.29	4.70	1.97	2.70	6.78	7.33	4.20	5.61	4.85	8.32	3.01	61.06
1863	4.51	4.54	6.42	9.08	2.82	2.56	12.38	5.64	3.12	3.83	6.48	6.34	67.72
1864	3.87	1.43	11.75	4.72	3.31	1.47	1.90	4. 17	2.60	4.80	4.00	5.28	49.30
1865	4.47	5.08	4.83	2.57	6.90	2.83	4.26	3.87	0.62	6.21	4.46	4.18	47.83
1866	3.73	5.28	6.12	2.03	5.04	3.41	5·42 4·76	10.78	5.90	2.72 6.76	3.74	2.48	55.64
1867	6.06	6.55	0.12	2.52	4.11	2.74	4.70		5.44	0.70	2.32	40	33404

MONTHLY AND ANNUAL PRECIPITATION-Continued.

1866   6.09   1.88   5.00   6.94   19.33   3.79   1.10   7.53   11.65   1.78   5.31   2.12   64.1856   6.05   9.88   5.74   2.04   6.28   4.44   3.30   2.19   5.61   6.51   4.74   9.04   66.   6.28   6.28   6.28   6.29   2.10   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29   6.29	Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Ang.	Sept.	Oct.	Nov.	Dec.	An'1.
1860. 1.03 9.188 5.74 2.05 6.88 4.44 3.30 2.19 5.18 6.71 3.74 9.04 66.  1871. 0.92 2.03 4.55 3.79 4.31 5.55 3.22 3.03 1.30 5.85 6.42 3.33 45.  1872. 2.11 2.31 4.05 1.33 3.29 4.83 4.50 1.05 6.06 4.45 3.05 5.99 1.15 1.15 1.15 1.15 1.15 1.15 1.1						1				,				
1876														66.11
1871. 0.92 2.05 4.55 3.79 4.31 5.55 3.72 3.00 1.30 5.88 6.42 3.33 45.1672. 2.17 4.31 4.31 4.05 1.31 3.29 4.84 4.05 1.06 6.06 2.07 1.39 2.85 2.14 4.31 1.31 4.31 4.32 1.31 4.31 4.32 1.31 4.31 4.32 1.31 4.31 4.32 1.31 4.31 4.32 1.31 4.32 1.31 4.32 1.31 4.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1										0.67		4.40		
1673 2.11 2.31 4.95 1.51 3.29 4.84 4.00 10.65 6.04 4.85 3.00 3.09 50.1573 5.73 5.24 1.00 7.97 3.77 3.94 3.47 6.67 2.05 1.39 2.85 2.14 43.1574 4.32 3.41 1.00 7.97 3.77 3.94 3.47 6.67 2.05 1.39 2.85 2.14 43.1575 5.05 5.74 5.04 4.92 3.70 7.25 3.93 3.50 3.12 4.99 5.47 7.07 5.75 1.57 1.53 3.0 4.59 1.70 1.70 1.57 1.59 1.57 1.59 1.59 1.57 1.59 1.59 1.59 1.59 1.59 1.59 1.59 1.59	1571		2.03						3.08			6.42	3.38	45.06
1875. 3. 3. 4. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	1872	2.11	2.31	4.05	1.31	3.29	4.84	4.00					3.09	50.23
1875. 1.5 3.5 3.7 4.5 4.7 3.6 1.2 4.7 4.7 4.8 5.9 3.6 3.2 4.9 5.4 4.9 5.4 5.4 1.5 5.1 1.5 7.7 4.5 4.7 4.9 5.5 4.9 4.7 4.9 5.5 4.9 4.9 5.9 4.1 5.5 4.9 4.9 5.9 4.1 5.5 4.9 4.9 5.9 4.1 5.5 4.9 4.9 5.9 4.1 5.5 4.9 4.9 5.9 4.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5											5.33	2 85		54.53
1875 1.87						3.76								50.15
1877 7.0. 4.40 5.91 6.14 1.92 5.28 3.21 2.27 4.49 0.60 8.85 9.62 1.32 5.78 1879 2.79 4.405 5.91 6.14 1.92 2.25 4.27 4.49 0.60 8.85 9.62 1.32 5.88 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.89 1.70 1.80 1.89 1.70 1.80 1.80 1.80 1.80 1.80 1.80 1.80 1.8			4.54		3.61	2.70		5.86		3.84	1.66	11.03		48.96
1879. 2, 2, 3, 4, 3, 3, 90		3.33	0.45	9.79	4.19									51.49
1850.   3,72   4,11   3,45   2,85   1,63   0,75   6,86   2,90   2,26   3,15   2,90   3,42   37, 3   3,86   52,159   2,96   1,23   2,59   2,54   3,73   3,86   52,159   2,159   2,36   2,37   3,86   52,159   2,59   2,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59   3,59				5.91		1.03				3.47				65.53
1881 7.2. 4.59				3.90		1.63								37.30
1852. 3.59 4.77 3.55 2.59 6.05 1.03 3.91 1.46 10.93 2.29 1.20 2.65 43.71 3.58 1.85 4.5 5.95 2.74 2.35 2.85 2.75 2.75 2.35 2.85 2.75 2.75 2.75 2.75 2.75 2.75 2.75 2.7				4.56			7.79						3.80	52.63
1883 3.59 2.74 2.33 2.83 5.11 2.07 2.73 0.39 1.50 0.40 2.05 3.71 3.55 1.884 6.27 5.74 3.05 4.76 3.31 4.07 4.25 5.01 0.31 3.17 3.03 4.40 4.99 1.885 7.65 7.94 3.20 1.70 3.05 1.31 1.81 3.64 1.70 5.71 5.75 2.09 4.5 1.885 7.75 7.94 3.20 1.70 3.05 1.31 1.81 3.64 2.73 3.27 3.59 3.66 4.2 1.885 7.75 7.94 3.20 1.70 3.05 1.31 1.81 3.64 2.73 3.27 3.59 3.66 4.2 1.885 7.26 2.36 3.32 4.04 5.20 2.69 1.79 6.53 6.77 3.58 4.97 4.38 4.38 1.885 2.26 2.36 3.32 4.04 5.20 2.69 1.79 6.53 6.77 3.58 4.97 4.38 4.38 1.89 6.2 2.36 3.36 3.97 1.11 1.54 1.19 3.07 4.15 2.77 5.80 3.95 3.19 3.31 4.91 1.83 4.39 3.81 3.20 3.20 3.20 3.20 3.20 3.20 3.20 3.20						6.05	1.03		1.46	10.93		I.20	2.65	43.82
1885 5-33 3.00		3.59		2.33			2.07							35.48
1895.   7.05   7.04   3.29   1.70   3.05   1.31   1.81   3.64   2.73   3.27   3.59   3.56   3.69   3.65   3.69   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59   3.59	1854					3.31			7.61					49.18
1887	1555			3.20		3.08			3.64				3.66	42.14
1889. 4.11 1.54 1.19 3.07 4.15 2.77 5.80 3.95 3.19 3.31 4.91 1.83 39.189.0 4.11 1.54 1.19 3.07 4.15 2.77 5.80 3.95 3.19 3.31 4.91 1.83 39.189.0 4.19 3.66 3.94 1.71 1.56 3.06 3.73 3.75 7.2.99 5.50 4.55 3.58 3.95 3.95 3.19 2.40 4.15 2.77 5.80 3.75 7.2.99 5.50 4.55 3.58 3.95 3.95 3.95 3.95 3.95 3.95 3.95 3.95				3.56								2.22	2.71	33.75
1889 4.11	1885	2.26	2.36	3.32			2.69	1.79	6.53		3.58			45.89
1891.   4.39   3.66   3.94   1.71   1.56   3.66   3.73   3.87   2.29   5.56   2.35   3.58   39.     1892.   4.60   2.15   3.94   0.93   5.15   3.05   2.26   4.87   1.90   2.31   4.18   1.12   37.     1893.   2.56   6.22   2.50   3.13   5.25   2.20   1.72   6.46   1.59   2.94   1.83   5.16   41.18   41.18   3.01   3.15   1.01   3.76   4.12   0.80   3.09   3.03   2.14   5.11   3.17   4.28   36.18   39.     1896.   2.25   3.94   5.41   1.56   1.68   2.71   1.73   2.98   3.24   1.53   6.40   3.15   3.70   1.70   37.     1897.   3.16   2.12   2.79   3.17   4.00   4.64   4.22   3.95   2.38   0.41   6.19   3.92   40.     1898.   3.50   4.81   1.52   6.59   4.33   1.60   4.42   6.38   1.93   7.17   5.32   2.19   49.     1899.   4.19   3.03   5.95   1.29   0.81   2.56   2.52   2.52   2.50   0.20   2.40   2.51   1.52   34.     1900.   4.20   6.83   4.60   1.90   5.07   1.85   2.69   2.46   4.62   3.41   1.72   2.55   44.     1901.   1.56   0.66   6.58   7.43   6.31   1.31   5.20   3.25   2.50   3.02   2.44   8.49   48.     1902.   1.65   0.66   6.58   7.43   6.31   1.31   5.20   3.25   2.50   3.02   2.41   8.49   48.     1903.   3.33   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   8.39   4.19   3.03   3.93   5.10   3.25   2.50   3.02   2.41   8.49   48.     1904.   4.80   2.49   2.43   9.14   3.35   2.66   1.23   2.19   5.57   2.13   1.70   2.52   39.     1905.   4.09   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   3.24   3.10   3.39   3.10   3.39   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10   3.10	1889				3.07				3.95		3.31			39.82
1893. 2. 2. 56 6. 2. 2. 2. 50 3. 13 5. 2. 5. 2. 2. 1. 72 6. 4. 6. 1. 9. 2. 31 4. 4. 51. 1. 2 37. 1893. 2. 2. 56 6. 2. 2. 2. 50 3. 13 5. 2. 5. 2. 2. 1. 72 6. 4. 6. 1. 5. 9. 2. 4. 1. 1. 1. 1. 2 37. 1894. 3. 01 3. 1. 51 1. 01 3. 78 4. 1. 2 0. 80 3. 0. 9 3. 0. 3 2. 1. 4 5. 1. 1 3. 1. 0 4. 28 36. 1895. 3. 79 1. 11 2. 72 3. 3. 6. 2. 71 1. 73 2. 2. 8 3. 2. 4 1. 5. 1 3. 1. 0 4. 28 36. 1895. 3. 5. 0 4. 81 1. 52 6. 5. 9 4. 33 1. 6. 0 4. 4. 22 3. 3. 95 2. 38 0. 4. 1 0. 1. 9 3. 92 40. 1895. 3. 5. 0 4. 81 1. 52 6. 5. 9 4. 33 1. 6. 0 4. 4. 22 3. 3. 95 2. 38 0. 4. 1 0. 1. 9 3. 92 40. 1899. 4. 19 3. 03 5. 95 1. 29 0. 81 2. 86 2. 52 2. 5. 2. 5. 2. 5. 0 2. 4. 0 2. 51 1. 5. 2 34. 1900. 4. 20 6. 83 4. 60 1. 90 6. 5. 7 1. 85 2. 6. 9 2. 4. 0 2. 51 1. 5. 2 34. 1901. 1. 1. 56 0. 66 6. 58 7. 43 6. 31 1. 31 5. 20 3. 2. 52 2. 50 3. 0. 2. 2. 41 8. 4. 9 48. 1902. 1. 1. 65 4. 1. 9 5. 2. 9 2. 87 1. 0. 7 1. 77 2. 88 2. 20 2. 0. 8 4. 36 1. 0. 9 4. 8. 31. 1903. 3. 3. 3. 3. 90 5. 95 4. 1. 3 0. 32 7. 10 2. 9. 9 3. 3. 3 2. 43 3. 9. 51 1. 48 2. 57 41. 1904. 4. 80 2. 49 2. 43 9. 14 3. 3. 8 2. 06 1. 23 2. 19 5. 57 2. 13 1. 7. 2. 52 39. 1905. 2. 94 1. 88 1. 60 3. 3. 31 2. 2. 56 1. 2. 9 1. 10 7. 2. 52 39. 1905. 2. 40 4. 61 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.			2.29			1 56	2.21				5.56		3.72	39.14
1894. 3.01 3.15 1.01 3.78 4.12 0.80 3.03 2.14 5.13 5.16 41.183 5.16 41.1894. 3.01 3.15 1.01 3.78 4.12 0.80 3.03 2.14 5.11 3.10 4.28 36.1895. 3.79 1.11 2.72 3.65 2.71 1.73 2.68 3.24 1.53 6.19 8.07 2.45 40.1895. 3.59 1.11 2.72 3.65 2.71 1.73 2.68 3.24 1.53 6.19 8.07 2.45 40.1895. 3.50 4.81 1.52 6.59 4.33 1.60 4.42 3.95 2.38 0.41 0.19 3.03 5.95 1.29 0.81 2.85 2.52 2.52 5.09 2.40 2.51 1.52 3.41 1.90 1.90 3.03 5.95 1.29 0.81 2.85 2.52 2.52 5.09 2.40 2.51 1.52 3.41 1.90 1.90 3.03 5.95 1.29 4.81 1.93 1.93 7.17 5.32 2.19 49.1900. 4.20 6.83 4.60 1.90 5.07 1.85 2.69 2.46 4.62 3.41 4.17 2.25 4.45 1.90 1.90 5.07 1.85 2.69 2.46 4.62 3.41 4.17 2.25 4.45 1.90 1.90 1.90 5.07 1.85 2.69 2.46 4.62 3.41 4.17 2.25 4.45 1.90 1.90 5.95 4.43 0.32 7.19 2.99 3.33 2.43 3.95 1.48 8.99 4.19 3.03 5.95 4.43 0.32 7.19 2.99 3.33 2.43 3.95 1.48 8.99 4.19 3.03 5.95 4.43 0.32 7.19 2.99 3.33 2.43 3.95 1.48 2.57 4.1 1.90 4.4 4.80 2.49 2.43 9.14 3.38 2.66 1.23 2.19 5.57 2.13 1.70 2.52 3.9 1.90 2.96 2.66 5.45 2.14 1.47 5.23 1.00 3.30 5.10 0.82 1.70 3.23 3.2 1.90 2.90 2.96 5.45 3.31 3.12 2.56 1.09 1.10 7.43 2.54 6.02 4.31 37.1908 2.27 2.96 2.97 1.70 3.78 1.08 3.17 4.35 0.05 3.70 0.74 2.47 3.01 1.90 3.28 3.92 2.28 2.10 2.40 3.45 1.10 7.43 2.54 6.02 4.31 37.1908 2.27 2.96 2.97 1.70 3.78 1.08 3.17 4.35 0.05 3.70 0.74 2.47 3.01 1.90 3.28 3.92 2.28 2.10 2.89 1.10 7.43 2.54 6.02 4.31 37.1909 3.94 4.71 3.28 3.92 2.28 1.02 4.09 1.59 9.8 2.14 1.14 3.75 2.10 2.5 1.91 1.2 2.5 3.44 1.13 3.7 3.20 3.00 3.00 3.00 3.00 3.00 3.00 3.00				3.91			3.05	2.56			2.31		1.12	37.02
1896   3.01   3.15   1.01   3.78   4.12   0.80   3.09   3.03   2.14   5.11   3.10   4.28   36.1   1895   3.79   1.11   1.56   5.271   1.73   2.98   3.24   1.53   6.19   8.07   2.45   4.81   1.56   1.68   2.71   2.90   2.15   6.40   3.15   3.70   1.70   37.   1897   3.16   2.12   2.79   3.17   4.00   4.46   4.22   3.95   2.38   0.31   6.10   3.92   40.   3.18   3.03   5.95   1.29   0.81   2.86   2.52   2.52   5.09   2.40   2.51   1.52   3.19   4.18   1.90   4.40   4.26   3.42   4.77   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.41   4.17   2.25   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18   4.18				2.80			2.20					1.83	5.16	41.84
1896   2.25   3.94   5.41   1.56   1.66   2.71   2.90   2.15   6.40   3.15   3.70   1.70   3.71   1.895   3.50   4.81   1.82   6.39   4.33   1.60   4.42   6.38   1.93   7.17   5.32   2.19   49.1   1.900   4.20   6.83   4.60   1.90   5.07   1.85   2.69   2.46   4.62   3.41   4.17   2.25   4.4   1.901   1.55   4.19   5.29   2.87   1.07   1.77   2.85   2.20   2.40   2.51   1.52   3.41   1.901   1.55   4.19   5.29   2.87   1.07   1.77   2.85   2.20   2.46   2.51   4.17   2.25   4.4   1.901   1.55   4.19   5.29   2.87   1.07   1.77   2.85   2.20   2.20   8.436   1.90   4.48   3.1   1.902   1.55   4.19   5.29   2.87   1.07   1.77   2.85   2.20   2.20   8.436   1.90   4.48   3.1   1.903   3.43   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   41.   1.904   4.85   2.49   2.43   9.14   3.35   2.06   1.23   2.19   5.57   2.13   1.70   2.52   3.1   1.905   4.09   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   3.1   1.905   4.09   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   3.1   1.905   4.01   1.91   1.01   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1.91   1	1894	3.01	3.15		3.78	4.12		3.09			5.11	3.10		36.62
1897         3.16         2.12         2.79         3.17         4.00         4.46         4.22         3.95         2.38         0.41         6.19         3.92         40.18           1898         3.50         4.81         1.82         6.39         4.33         1.60         4.42         6.38         1.93         7.75         5.32         2.19         8.11         8.20         2.86         2.82         2.52         2.50         2.40         2.51         1.52         3.41           1900         1.50         6.66         6.58         7.43         6.31         1.31         5.20         2.25         3.41         4.17         2.25         3.44           1902         1.65         4.19         5.29         2.87         1.07         1.77         2.88         2.20         2.68         4.36         1.09         4.48         3.31         3.09         3.90         3.91         4.93         1.93         1.16         4.83         1.90         2.25         1.41         4.75         2.23         1.00         3.39         5.10         8.82         1.77         3.23         3.2         1.93         1.10         4.48         3.31         1.10         4.11	1895				3.65	2.71				1.53			2.45	40.17
1899.   3.50   4.81   1.82   6.59   4.33   1.60   4.42   6.38   1.93   7.17   5.32   2.19   49.1     1990.   4.20   6.83   4.50   1.90   5.07   1.85   2.69   2.46   4.62   3.41   4.17   2.25   34.1     1901.   1.56   0.66   6.58   7.43   6.31   1.31   5.20   3.25   2.50   3.02   2.41   8.49   48.1     1902.   1.65   4.19   5.29   2.57   1.07   1.77   2.88   2.20   2.68   4.36   1.09   4.48   33.1     1903.   3.43   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   41.1     1904.   4.80   2.49   2.43   9.14   3.38   2.66   1.23   2.19   5.57   2.13   1.70   2.25   39.1     1905.   4.09   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   32.1     1906.   2.96   2.66   5.45   2.15   4.91   2.57   5.38   1.58   2.60   3.88   2.55   3.96   4.00     1907.   2.54   1.88   1.66   3.31   5.12   2.56   1.09   1.10   7.43   2.54   6.02   4.31   37.1     1908.   2.47   2.96   2.97   1.70   3.78   1.08   3.17   4.35   0.68   3.70   0.74   2.47   30.1     1909.   3.94   4.71   3.28   3.92   2.33   4.45   0.97   3.55   5.15   1.77   4.11   3.19   40.1     1910.   4.25   3.44   1.25   2.22   1.02   4.89   1.15   0.98   2.14   1.14   3.75   2.10   28.1     1911.   2.28   2.85   2.95   2.28   0.55   3.67   4.65   4.17   2.95   2.27   4.29   3.07   3.51   4.19   4.11   3.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19   4.19						1.05						6.70		37.55
1869a	1897													49.86
1960.   4-20   6.83   1.60   1.90   5.07   1.85   2.69   2.46   4.62   3.41   4.17   2.25   4.4   1901.   1.56   0.66   6.58   7.43   6.31   1.31   5.20   3.25   2.50   3.25   2.50   3.25   2.41   8.49   4.81   33.   1903.   3.43   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   4.41   3.75   2.69   2.95   3.09   3.33   2.43   3.95   1.48   2.57   4.41   3.75   2.99   2.95   2.45   2.45   2.45   3.41   3.35   2.65   1.23   2.19   5.57   2.13   1.70   2.25   39.   1905.   4.09   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   32.   1905.   2.96   2.65   5.45   2.15   4.91   2.57   5.38   1.58   2.61   3.88   2.55   3.96   40.   1907.   2.54   1.88   1.66   3.31   3.12   2.56   1.09   1.10   7.43   2.54   6.02   4.31   37.   1908.   2.47   2.96   2.97   1.70   3.78   1.08   3.17   4.35   0.65   3.70   0.74   2.47   3.49   3.75   3.94   4.71   3.25   3.92   2.33   4.45   0.97   3.55   5.15   1.77   2.95   2.27   2.70   2.81   1.11   2.28   2.28   2.28   2.28   2.28   0.35   3.57   4.65   4.17   2.95   2.27   4.29   3.07   3.55   3.19   3.22   3.44   1.25   2.22   1.02   4.89   1.15   0.98   2.14   1.14   3.75   2.10   2.85   1.91   2.287   2.38   4.18   3.07   4.04   0.27   5.16   1.94   1.67   1.00   2.61   5.36   3.44   1.25   3.04   1.57   3.22   0.64   2.69   2.56   2.51   6.04   2.15   3.05   3.41   1.91   3.25   3.20   4.15   2.85   2.57   3.95   3.41   3.25   3.20   4.15   3.25   3.57   4.65   4.17   2.95   2.27   4.29   3.07   3.55   3.191   3.2   3.65   4.55   3.79   4.75   3.25   3.65   4.65   4.17   2.35   3.65   4.65   4.17   2.95   2.27   4.29   3.07   3.55   3.65   4.65   4.17   2.95   2.27   4.29   3.07   3.55   3.65   4.65   4.17   2.35   3.65   4.65   4.17   2.35   4.18   3.20   4.15   2.35   3.55   3.65   4.65   4.17   2.95   2.25   2.25   2.14   4.14   3.75   3.05   3.41   3.11   3.55   3.05   3.65   4.65   4.17   2.35   3.05   3.65   4.65   4.17   2.35   4.15   4.15   4.15   4.15   4.15   4.15   4.15   4.15   4.15   4.15   4.15   4.15			3.03							5.09		2.51		34.69
1\(\frac{9}{2}\)2.         1\(\frac{6}{6}\)5.         4\(\frac{1}{9}\)5.         2\(\frac{8}{7}\)7.         1\(\frac{7}{7}\)7.         2\(\frac{8}{8}\)8.         2\(\frac{2}{2}\)2.         2\(\frac{4}{8}\)3.         3\(\frac{9}{2}\)5.         5\(\frac{7}{7}\)7.         2\(\frac{8}{8}\)8.         2\(\frac{2}{2}\)6.         2\(\frac{4}{3}\)3.         2\(\frac{5}{3}\)7.         1\(\frac{2}{2}\)9.         3\(\frac{3}{3}\)3.         2\(\frac{1}{3}\)5.         1\(\frac{4}{3}\)8.         2\(\frac{6}{3}\)7.         1\(\frac{2}{3}\)9.         5\(\frac{7}{3}\)7.         2\(\frac{2}{3}\)9.         3\(\frac{3}{3}\)3.         2\(\frac{1}{3}\)5.         1\(\frac{1}{3}\)6.         2\(\frac{2}{3}\)5.         1\(\frac{1}{3}\)7.         2\(\frac{2}{3}\)5.         3\(\frac{6}{3}\)9.         2\(\frac{1}{3}\)7.         3\(\frac{2}{3}\)9.         3\(\frac{3}{3}\)9.         3\(\frac{3}{3}\)9.         3\(\frac{3}{3}\)9.         3\(\frac{3}{3}\)9.         1\(\frac{3}{3}\)9.         1\(\fra		4.20	6.83	4.60	1.90			2.69	2.46	4.62	3.41	4-17	2.25	44.05
1903         3.43         3.90         5.95         4.43         0.32         7.19         2.99         3.33         2.43         3.95         1.48         2.57         41.7           1904         4.80         2.49         2.43         9.14         3.38         2.06         1.23         2.19         5.57         2.13         1.70         2.25         3.91           1905         4.09         1.59         2.25         2.14         1.47         5.23         1.00         3.39         5.51         0.82         1.77         3.23         3.21           1907         2.54         1.88         1.66         5.31         3.12         2.25         1.99         1.17         7.43         2.55         3.94         4.31         3.71         4.93         1.09         3.74         4.35         0.60         3.70         0.74         2.47         3.00           1909         3.94         4.71         3.28         3.92         2.38         4.91         1.55         0.95         2.14         1.14         3.75         2.10         2.11         3.75         2.12         1.24         3.22         1.62         1.65         1.67         4.11         3.19	1901									2.50			8.49	48.72
1goal.         4.80         2.49         2.43         9.14         3.38         2.06         1.23         2.19         5.57         2.13         1.70         2.52         2.33         1.90           1go5         4.09         1.59         2.25         2.14         1.47         5.23         1.00         3.39         5.10         0.82         1.77         3.23         3.23         1.58         1.66         3.31         3.12         2.56         1.09         1.10         7.43         2.54         6.02         4.31         3.70           1go8         2.17         2.96         2.97         1.70         3.78         1.08         3.17         4.35         0.65         3.70         7.07         7.43         3.26         4.31         3.77         4.35         0.92         2.38         4.13         3.72         2.63         4.53         4.92         1.55         0.95         5.14         1.14         4.73         3.22         4.23         3.07         4.01         2.71         5.16         1.94         1.67         1.00         2.61         5.36         3.67         4.65         4.17         3.22         3.53         5.15         1.07         1.00         2.61         <												1.48	4.40	33.93
1905         4.09         1.59         2.25         2.14         1.47         5.23         1.00         3.39         5.10         0.82         1.77         3.23         3.21           1906         2.96         2.66         5.45         2.15         4.91         2.57         5.38         1.58         2.61         3.88         2.55         3.96         40.19           1907         2.54         1.88         1.66         3.31         3.12         2.56         1.09         1.10         7.43         2.54         6.02         4.31         37.           1908         3.94         4.71         3.28         3.92         2.33         4.45         0.95         2.14         1.14         3.75         2.10         2.47           1911         2.28         2.85         2.95         2.28         0.35         3.67         4.05         4.17         2.95         2.27         4.12         3.94         4.13         3.79         4.24         1.87         1.40         1.67         1.00         2.61         5.36         3.41         1.14         1.14         1.14         1.14         1.14         1.14         1.14         1.14         1.14         1.14         1		4.80					2.06							39.64
1906.         2.96         2.66         5.45         2.15         4.91         2.57         5.36         1.58         2.64         3.88         2.55         3.96         40.1           1908.         2.17         2.96         2.97         1.70         3.78         1.08         3.17         4.35         0.68         3.70         0.74         2.47         30.0           1909.         3.94         4.71         3.28         3.92         2.33         4.45         0.97         3.55         5.15         1.07         4.11         3.19         40.1           1910.         4.25         3.44         1.25         2.22         1.02         4.18         3.07         4.06         0.97         3.55         5.15         1.07         4.11         3.75         2.10         28           1911.         2.28         2.85         2.95         2.25         0.35         3.67         4.65         4.17         2.95         2.27         4.29         3.07         3.0         3.67         4.65         4.17         2.95         2.27         4.29         3.05         3.63         3.47         1.10         1.60         2.26         2.26         2.26         2.25         2.02			1.59						3.39	5.10	0.82		3.23	32.08
1608         2.47         2.96         2.97         1.70         3.78         1.08         3.17         4.35         0.68         3.70         0.74         2.47         30.           1909.         3.94         4.71         3.28         3.92         2.33         4.45         0.97         3.55         5.15         1.07         4.11         3.19         40.           1911.         2.28         2.28         2.95         2.22         1.02         4.89         1.15         0.95         2.14         1.14         3.75         2.10         28.           1911.         2.28         2.85         2.95         2.28         0.35         3.67         4.65         4.17         2.92         2.27         1.00         2.61         1.94         1.67         1.00         2.61         1.94         1.67         1.00         2.61         1.94         1.67         1.00         2.61         1.94         1.67         1.00         2.61         1.94         1.66         1.64         1.40         2.24         2.56         2.51         6.04         2.15         3.05         3.63         2.51         6.04         2.15         3.06         3.27         2.14         3.94         3.5	1906		2.66	5.45					1.58			2.55	3.96	40.69
1990. 3.94 4.71 3.28 3.92 2.33 4.45 0.97 3.55 5.15 1.07 4.11 3.19 40.1910. 4.25 3.44 1.25 2.21 1.22 4.89 1.15 0.98 2.14 1.14 3.75 2.10 28. 1911. 2.28 2.85 2.95 2.28 0.35 3.67 4.65 4.17 2.95 2.27 4.29 3.07 35. 1912. 2.87 2.88 4.18 3.07 4.04 0.27 5.16 1.94 1.67 1.00 2.61 5.36 34. 1913. 2.38 2.99 4.81 4.77 3.22 0.64 2.69 2.65 2.51 6.04 2.15 3.05 38. 1914. 3.26 3.07 4.16 5.87 2.78 1.40 2.64 3.20 0.21 1.54 2.72 3.46 34. 1915. 6.33 3.47 T. 1.86 1.64 1.39 8.85 5.63 0.69 2.82 2.14 1.43 3.94 38. 1914. 3.26 3.07 4.16 5.87 2.79 1.40 2.64 3.20 0.21 1.54 2.72 3.46 34. 1915. 6.33 3.47 T. 1.86 1.64 1.39 8.85 5.63 0.69 2.82 2.14 1.39 438. 1916. 1.23 5.18 3.20 4.51 2.83 5.04 5.67 2.19 1.90 0.94 1.67 3.00 3.19 1.91 1.91 1.90 0.94 1.67 3.00 3.19 1.91 1.91 1.90 0.94 1.67 3.00 3.19 1.91 1.91 1.90 0.94 1.67 3.00 3.19 1.91 1.91 1.90 0.94 1.20 3.21 34. 1919. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42. 1919. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42. 1922. 2.24 2.64 1.92 4.62 3.64 3.85 11.69 1.63 1.22 1.24 6.19 2.35 4.51 1.92 1.22 4.26 4 4.35 2.48 5.34 8.05 2.63 4.75 3.09 1.64 5.46 3.89 45. 1921. 2.24 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.09 1.64 5.46 1.97 0.84 3.01 41. 1923. 3.07 2.81 1.07 2.04 6.86 0.38 3.37 2.78 4.98 34. 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 0.96 0.06 1.97 0.84 3.01 41. 1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.78 4.09 3.94 1.29 3.81 1.93 3.60 5.90 1.03 3.58 4.07 3.98 4.98 34. 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 0.96 0.06 1.97 0.84 3.01 41. 1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.78 4.09 2.99 35. 1929. 3.82 3.78 2.80 7.52 2.82 2.80 1.35 2.22 0.76 2.38 3.01 4.43 3.79 1.22 2.67 3.28 1.19 1.36 2.50 2.43 3.37 2.78 4.98 34. 1924. 3.27 2.61 2.04 3.79 2.28 2.29 2.29 3.28 3.00 2.24 3.36 3.03 3.02 2.28 3.01 4.43 3.79 3.19 3.00 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 3.02 2.65 5.83 4.09 2.99 35. 1935. 2.22 2.076 2.28 3.00 3.00 2.29 3.51 3.93 1.31 3.57 5.34 2.52 3.81 1.20 2.20 3.36 3.00 3.20 2.43 3.91 0.66 32. 1935. 0.13 3.26 1.52 4.77	1907					3.12								37.56
1911.   2.28   2.85   2.95   2.25   1.62   4.89   1.15   0.95   2.14   1.14   3.75   2.10   28.	1900			2.97										40.67
1911. 2.28 2.85 2.95 2.28 0.35 3.67 4.65 4.17 2.95 2.27 4.29 3.07 35.  1912. 2.87 2.38 4.18 3.07 4.40 0.27 5.16 1.94 1.67 1.00 2.61 5.36 34.  1913. 2.38 2.99 4.81 4.77 3.22 0.64 2.69 2.86 2.51 6.04 2.15 3.05 38.  1914. 3.26 3.07 4.16 5.87 2.78 1.40 2.64 3.20 0.21 1.54 2.72 3.46 34.  1915. 6.33 3.47 T. 1.86 1.64 1.39 8.55 5.63 0.69 2.82 2.14 3.94 38.  1916. 1.23 5.18 3.20 4.51 2.83 5.04 5.67 2.19 1.90 0.94 1.67 3.00 37.  1917. 2.82 2.67 3.73 2.72 4.45 4.05 1.10 7.66 1.91 5.33 0.59 2.56 38.  1918. 3.11 2.30 3.19 3.08 1.99 1.94 2.64 1.56 9.19 0.99 1.20 3.21 34.  1919. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42.  1920. 2.72 5.88 3.72 5.68 5.26 5.78 1.56 2.32 1.90 1.64 5.46 3.89 45.  1921. 2.24 2.64 1.92 4.62 3.64 3.58 11.69 1.63 1.22 1.24 6.19 2.35 42.  1922. 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41.  1923. 6.07 1.48 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34.  1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 0.06 1.93 1.48 34.  1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41.  1926. 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 4.0  1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41.  1928. 3.69 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.76 2.38 3.01 4.43 37.  1929. 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.76 2.38 3.01 4.43 37.  1933. 4.09 4.21 4.66 3.12 4.51 0.50 2.95 2.10 4.24 4.50 0.34 3.11 0.65 2.99 35.  1933. 4.09 4.21 7.76 6.80 7.37 2.78 1.22 2.63 3.41 10.94 3.11 0.65 2.99 35.  1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.99 41.  1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 5.29 41.  1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 5.29 41.  1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 5.29 41.  1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 5.29 3.9 4.19 3.3 2.8 3.9 4.09 2.99 35.  1939. 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32.				1.25			4.89							28.33
1913. 2.38 2.99 4.81 4.77 3.22 0.64 2.69 2.86 2.51 6.04 2.15 3.05 38. 1914. 3.26 3.07 4.16 5.87 2.78 1.40 2.64 3.20 9.21 1.54 2.72 3.46 34. 1915. 6.33 3.47 T. 1.86 1.64 1.39 8.85 5.63 0.69 2.82 2.14 3.94 38. 1916. 1.23 5.18 3.20 4.51 2.83 5.04 5.67 2.19 1.90 0.94 1.67 3.00 37. 1917. 2.82 2.67 3.73 2.72 4.45 4.05 1.10 7.66 1.91 5.33 0.59 2.56 38. 1918. 3.11 2.30 3.19 3.08 1.99 1.94 2.64 1.56 9.19 0.99 1.20 3.21 34. 1919. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42. 1920. 2.72 5.88 3.72 5.65 5.26 5.78 1.56 2.32 1.90 1.64 5.46 3.89 45. 1921. 2.24 2.64 1.92 4.62 3.64 3.55 11.69 1.63 1.22 1.24 6.19 2.35 42. 1922. 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41. 1923. 6.07 1.48 2.49 5.26 0.83 2.33 3.36 1.86 0.38 3.37 2.78 4.98 3.1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 8.06 1.93 1.48 34. 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 8.06 1.93 1.48 34. 1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.08 3.45 4.03 3.56 5.20 41. 1926. 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40. 1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41. 1928. 1.66 2.66 1.56 4.68 3.08 5.55 4.14 2.45 4.47 2.88 1.85 2.61 37. 1929. 3.82 3.78 2.88 7.52 2.82 2.39 1.35 2.22 0.76 2.38 3.01 4.43 37. 1929. 3.82 3.78 2.80 7.52 2.82 2.39 1.35 2.22 0.76 2.38 3.01 4.43 37. 1933. 4.24 1.74 5.28 1.67 1.63 2.05 2.10 4.24 4.50 7.18 5.24 1.78 41. 1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 4.3 11 0.65 2.9 34. 1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 3.11 0.65 2.9 34. 1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 3.11 0.65 2.9 3.90 34. 1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 3.11 0.65 2.9 3.9 4.19 3.9 3.9 3.4 4.54 4.9 3.36 6.00 2.43 2.99 34. 1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 3.11 0.65 5.29 41.78 41. 1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 3.11 0.65 5.29 41.79 1.33 5.00 3.00 6.00 3.45 3.10 0.44 5.77 1.33 8.19 40. 1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 3.10 0.65 3.2 2.99 3.1 3.1 3.57 5.34 2.52 3.45 4.29 2.70 0.75 2		2.28	2.85	2.05	2.28		3.67	4.65	4.17	2.95	2.27	4.29	3.07	35.78
1914. 3.26 3.07 4.16 5.87 2.78 1.40 2.64 3.20 0.21 1.54 2.72 3.46 34. 1915. 6.33 3.47 T. 1.86 1.64 1.39 5.85 5.63 0.69 2.82 2.14 3.94 38. 1916. 1.23 5.18 3.20 4.51 2.83 5.04 5.67 2.19 1.90 2.94 1.67 3.00 37. 1917. 2.82 2.67 3.73 2.72 4.45 4.05 1.10 7.66 1.91 9.09 1.20 3.21 34. 1919. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42. 1920. 2.72 5.88 3.72 5.66 5.26 5.78 1.56 2.32 1.90 1.64 5.46 3.89 45. 1921. 2.24 2.64 1.92 4.62 3.64 8.55 1.69 1.69 1.69 1.64 5.46 3.89 45. 1922. 1.41 2.64 4.35 2.48 5.34 8.05 2.63 3.36 1.22 1.24 6.19 2.35 42. 1922. 1.42 2.64 4.35 2.48 5.34 8.05 2.63 3.36 1.86 0.38 3.37 2.78 4.98 34. 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.97 0.84 3.01 41. 1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41. 1926. 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40. 1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41. 1928. 1.66 2.66 1.56 4.68 3.08 5.55 4.14 2.45 4.47 2.88 1.85 2.61 37. 1929. 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.76 2.38 3.01 4.43 37. 1930. 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.30 3.02 6.58 3.01 4.43 37. 1931. 2.04 3.77 6.80 7.37 2.28 3.29 2.69 3.44 1.09 4.21 1.78 5.28 1.67 1.63 2.05 2.10 4.24 4.50 7.18 5.24 1.78 41. 1931. 2.67 4.45 4.04 3.21 1.56 3.11 1.25 1.83 5.67 2.94 1.78 1.94 1.93 3.94 4.09 2.99 35. 1931. 4.09 4.21 4.66 3.12 4.51 5.05 3.11 1.25 1.83 5.67 2.94 1.78 1.06 3.2 2.90 44. 1932. 4.24 1.74 5.28 1.67 1.63 2.05 2.10 4.24 4.50 7.18 5.24 1.78 41. 1933. 2.04 3.77 6.80 7.37 2.24 1.22 2.63 3.41 10.94 3.11 0.65 2.99 45. 1933. 2.04 3.77 6.80 7.37 2.24 6.30 0.46 3.31 1.00 4.77 1.14 2.91 32.  M*ns**		2.87	2.38					5.16	1.94	1.67				34.55
1915.         6.33         3.47         T.         1.86         1.64         1.39         8.55         5.63         0.69         2.82         2.14         3.94         38.           1916.         1.23         5.18         3.20         4.51         2.83         5.04         5.67         2.19         1.99         0.99         1.67         3.00         37.           1918.         3.11         2.30         3.19         3.08         1.99         1.94         2.64         1.56         9.19         0.99         1.94         2.64         1.56         9.19         0.99         1.97         0.89         1.92         1.94         1.94         1.65         9.19         0.99         1.94         2.64         1.56         9.19         0.99         1.94         2.64         1.56         9.19         0.99         1.94         2.61         1.97         0.84         3.50         5.25         5.83         2.11         3.06         3.60         3.21         3.41         3.22         3.21         3.30         3.21         3.31         3.33         3.42         3.42         3.22         3.44         3.22         3.44         3.22         3.44         3.22         3.44         3.22 </td <td></td> <td>2.38</td> <td>2.99</td> <td></td> <td>4.77</td> <td>3.22</td> <td></td> <td></td> <td></td> <td>0.51</td> <td></td> <td></td> <td></td> <td>38.11</td>		2.38	2.99		4.77	3.22				0.51				38.11
1916.         1.23         5.18         3.20         4.51         2.83         5.04         5.67         2.19         1.90         0.94         1.67         3.00         37.           1917.         2.82         2.67         3.73         2.72         4.45         4.05         1.10         7.66         1.91         5.33 <b>0.59</b> 2.56         3.8.           1918.         3.11         2.30         3.93         3.08         1.99         1.94         2.64         1.56         9.19         5.33 <b>0.59</b> 2.26         3.8.           1920.         2.72         5.88         3.72         5.66         5.26         5.26         5.26         5.26         5.26         5.26         5.26         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5.56         5		6.33		T.	1.86	1.64		8.85			2.82			38.76
1917. 2.82 2.67 3.73 2.72 4.45 4.05 1.10 7.60 1.91 5.33 0.09 2.50 38.1918. 3.11 2.30 3.19 3.08 1.99 1.94 1.64 1.56 9.19 0.99 1.20 3.21 34.1919. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42.1920. 2.72 5.88 3.72 5.68 5.26 5.78 1.56 2.32 11.90 1.64 5.46 3.89 45. 1921. 2.24 2.64 1.35 2.48 5.34 8.05 2.63 1.63 1.22 1.24 6.19 2.35 42.1922. 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41.1923. 6.07 1.48 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34.1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.97 0.84 3.01 41.1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41.1926. 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40.1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41.1928. 1.66 2.66 1.56 4.68 3.08 5.56 4.14 2.45 4.47 2.88 1.85 2.61 37.1929. 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.76 2.38 3.01 4.43 37.1930. 2.77 2.23 3.02 2.08 3.39 2.44 3.36 3.03 0.26 5.83 4.09 2.99 35.1933. 4.29 4.49 34.49 1.932. 4.49 1.74 5.28 1.67 1.63 2.05 2.10 4.24 4.50 7.18 5.24 1.78 41.1933. 2.04 3.77 6.80 7.37 6.80 7.37 2.26 3.31 1.00 3.26 5.83 4.09 2.99 35.1931. 2.04 3.77 6.80 7.37 6.80 7.37 2.26 3.31 1.00 3.26 5.83 4.09 2.99 35.1933. 2.04 3.77 6.80 7.37 6.80 7.37 2.26 3.31 1.00 3.26 5.83 4.09 2.99 35.1931. 2.04 3.77 6.80 7.37 2.27 1.22 2.63 3.41 1.0.94 3.11 0.65 2.99 1.78 1.933. 2.04 3.77 6.80 7.37 2.27 1.25 5.07 1.10 2.14 2.69 0.34 3.91 0.66 32.1931. 2.67 4.45 4.07 2.88 1.178 41.1933. 2.04 3.77 6.80 7.37 2.27 1.25 5.07 1.10 2.14 2.69 0.34 3.91 0.65 32.99 41.1933. 2.04 3.77 6.80 7.37 2.27 1.25 2.63 3.41 10.94 3.11 0.65 2.93 41.1933. 2.04 3.77 6.80 7.37 2.27 1.25 5.07 1.10 2.14 2.69 0.34 3.91 0.65 32.99 41.1933. 2.04 3.77 6.80 7.37 2.27 1.25 2.69 0.46 3.50 3.95 4.66 5.09 43.1935. 6.13 3.26 1.52 4.77 1.55 5.07 1.10 2.14 2.69 0.34 3.91 0.65 32.99 41.1933. 2.04 3.77 6.80 7.37 2.24 3.29 2.26 3.34 1.0.94 3.11 0.47 1.14 2.91 32. 4.1935. 2.18 3.79 5.23 4.42 4.29 2.00 0.46 3.36 3.00 0.24 2.89 2.90 44.1933. 2.24 3.45 4.91 2.38 2.42 3.22 4.42 6.30 0.46 3.3	1916	1.23	5.18	3.20					2.19			1.67	3.00	37.36
1910. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42. 1920. 2.72 5.88 3.72 5.68 5.26 5.78 1.56 2.32 1.90 1.64 5.46 3.89 45. 1921. 2.24 2.64 1.92 4.62 3.64 3.58 11.69 1.63 1.22 1.24 6.19 2.35 42. 1922. 1.41 2.64 4.35 2.48 5.34 5.05 2.63 3.68 1.86 0.38 3.37 2.78 4.98 34. 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.97 0.84 3.01 41. 1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41. 1926. 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40. 1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41. 1928. 1.66 2.66 1.56 4.68 3.08 5.56 4.14 2.45 4.47 2.88 1.85 2.61 37. 1929. 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.76 2.38 3.01 4.43 37. 1930. 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.26 5.83 4.09 2.99 35. 1931. 4.09 4.21 4.66 3.12 4.51 9.13 2.43 4.45 1.67 2.18 0.82 2.90 44. 1933. 4.24 1.74 5.28 1.67 1.63 2.05 2.10 4.24 4.50 7.18 5.24 1.78 41. 1933. 2.04 3.77 6.80 7.37 2.23 3.22 1.35 2.22 2.63 3.41 10.94 3.11 0.65 2.93 41. 1933. 2.04 3.77 6.80 7.37 2.25 1.50 1.10 2.14 2.69 0.34 3.10 0.66 32. 1934. 2.67 4.45 4.01 3.21 1.56 3.11 1.25 1.83 5.67 2.94 1.78 41. 1933. 6.46 5.66 6.40 3.54 1.70 2.37 1.04 5.15 3.79 2.67 1.33 8.19 46. 1933. 3.26 1.52 4.77 1.35 5.07 1.10 2.14 2.69 0.34 3.91 0.66 32. 1939. 6.13 3.26 1.52 4.77 1.55 5.07 1.10 2.14 2.69 0.34 3.91 0.66 32. 1933. 3.93 1.31 3.56 1.52 4.77 1.55 5.07 1.10 2.14 2.69 0.34 3.91 0.66 32. 1939. 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32.	1917	2.82	2.67	3.73	2.72	4.45	4.05	1.10				0.59	2.56	38.99
1920         2,72         5.88         3,72         5.66         5.26         5.78         1.56         2.92         1.90         1.64         5.46         3.89         45.           1921         2.24         2.64         1.92         4.62         3.64         3.58         11.69         1.63         1.22         1.24         6.19         2.35         42.           1923         1.41         2.64         4.35         2.48         5.34         8.05         2.63         4.75         3.66         1.97         0.84         3.01         41.           1923         3.97         1.48         2.49         5.26         0.83         2.03         3.36         1.86         0.38         3.37         2.78         4.98         34+           1924         3.27         2.61         2.95         1.48         1.07         2.04         6.86         6.96         0.60         0.06         1.93         1.48         3.41           1925         3.97         1.55         5.21         2.48         2.07         4.59         3.54         1.40         3.45         4.03         3.66         5.20         41           1926         2.53         5				3.19									3.21	34.40
1921.         2. 24         2. 64         1. 92         4.62         3. 64         3. 58         11. 69         1. 63         1. 22         1. 24         6. 19         2. 35         42.           1922.         1. 41         2. 64         4. 35         2. 48         5. 34         8. 05         2. 63         4. 75         3. 66         1. 97         0. 84         3. 01         41           1923.         6. 07         1. 48         2. 49         5. 26         0. 83         2. 03         3. 36         1. 86         6. 96         0. 66         1. 97         0. 84         3. 01         41           1924.         3. 27         2. 61         2. 04         3. 79         2. 81         1. 07         2. 04         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 66         6. 6         6. 66         6. 6         6. 6 <th< td=""><td>1979</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>5.46</td><td>3.80</td><td>42.70 45.81</td></th<>	1979											5.46	3.80	42.70 45.81
1922. 1.41 2.64 4.35 2.48 5.34 5.05 2.63 4.75 3.66 1.97 0.84 3.01 41. 1922. 6.07 1.48 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34. 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34. 1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.51 1.40 3.45 4.03 3.58 4.07 3.96 40. 1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41. 1928. 1.66 2.66 1.56 4.68 3.08 5.56 4.14 2.45 4.47 2.88 1.85 2.61 37. 1929. 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.76 2.38 3.01 4.43 37. 1930. 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.26 5.83 4.09 2.99 35. 1933. 4.24 1.74 5.28 1.67 1.63 2.05 2.10 4.24 4.50 6.88 0.82 2.90 44. 1932. 0.43 7.7 6.80 7.37 2.74 1.22 2.63 3.41 10.94 2.11 0.65 2.66 1.26 4.07 3.27 1.28 1.29 1.39 1.25 1.83 5.67 2.94 1.78 41. 1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 4.1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 4.1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 4.79 1.935. 6.13 3.26 6.40 3.54 1.70 2.37 1.04 5.15 3.79 2.67 1.33 3.90 0.66 32 1.935. 6.13 3.26 6.40 3.54 1.70 2.37 1.04 5.15 3.79 2.67 1.33 3.19 46. 1933. 2.38 1.31 3.57 5.34 2.52 3.74 1.17 4.97 3.69 3.95 4.66 5.09 43.1935. 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32. 101.88 73.59 3.29 3.79 3.59 3.13 3.15 3.35 3.55 3.35 4.4					4.62		3.58		1.63	I. 22				42.96
1923. 6.07 1.48 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34.1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 6.06 6.96 0.06 1.93 1.48 34.1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 6.08 3.66 5.20 41.1926. 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40.1928. 1.66 2.66 1.56 4.68 3.08 5.56 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41.1928. 1.66 2.66 1.56 4.68 3.08 5.56 4.14 2.45 4.47 2.88 1.85 2.61 37.1929. 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.76 2.38 3.01 4.43 37.1939. 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.00 2.65 5.83 4.09 2.99 35.1931. 4.09 4.21 4.66 3.12 4.51 9.13 2.43 4.45 1.67 2.18 0.82 2.90 44.1932. 4.24 1.74 5.28 1.67 1.63 2.05 2.10 4.24 4.50 7.18 5.24 1.78 41.1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 47.1931. 2.67 4.45 4.04 3.21 1.56 3.11 1.25 1.83 5.67 2.94 3.31 0.65 2.93 47.1935. 2.67 4.45 4.04 3.21 1.56 3.11 1.25 1.83 5.67 2.94 1.78 1.64 34.1935. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43.1936. 6.46 3.66 6.40 3.54 1.70 2.37 1.04 5.15 3.79 2.67 1.33 8.19 46.1937. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43.1939. 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32. 10.18 3.79 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32. 10.18 3.79 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32. 10.18 3.59 3.59 3.59 3.59 3.59 3.59 3.59 3.59	1922	1.41	2.64		2.48	5.34	8.05	2.63	4.75	3.66	1.97	0.84	3.01	41.13
1925         3.97         1.55         5.21         2.48         2.07         4.59         3.54         1.40         3.45         4.03         3.60         5.20         41.71           1926         2.53         5.56         2.91         1.73         3.31         1.33         6.06         3.91         1.08         3.84         4.07         3.09         40.           1927         2.67         3.28         1.19         1.36         2.50         2.43         4.77         6.73         2.43         3.77         4.71         5.23         41.           1928         1.66         2.66         4.68         3.08         5.56         4.14         2.45         4.47         2.88         1.85         2.61         37.           1930         2.77         2.23         3.02         2.08         3.39         2.21         3.56         3.03         0.26         5.83         4.09         2.99         35.           1931         4.09         4.21         4.66         3.12         4.51         9.18         2.33         4.16         5.24         4.77         8.1         1.67         2.18         4.09         2.21         1.78         4.4         4	1923			2.49		0.83	2.03		1.86		3.37		4.98	34.89
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1924	3.27			3.79							2.66	1.48	34.92 41.15
1927         2.67         3.28         1.19         1.36         2.50         2.43         4.77         6.73         2.43         3.77         4.71         5.23         41.1           1928         1.66         2.66         1.56         4.68         3.08         5.56         4.14         2.48         4.7         2.88         1.85         2.61         37.           1929         3.82         3.78         2.80         7.52         2.82         2.30         1.35         2.22         0.76         2.38         3.01         4.43         37.           1930         2.77         2.23         3.02         2.08         3.39         2.24         3.36         3.03         0.26         5.83         4.09         2.99         35.           1933         2.04         1.74         5.28         1.67         1.63         2.05         2.10         4.24         4.50         7.18         5.24         1.78         4.1           1933         2.04         3.77         6.80         7.37         2.74         1.22         2.63         3.41         1.04         3.11         0.65         2.93         4.7           1935         6.13         3.	1925	1 2, 53												40.03
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1927	2.67	3.28	1.19	1.36	2.50	2.43	4.77	6.73			4.71	5.23	41.07
1930.         2.77         2.23         3.02         2.08         3.39         2.24         3.36         3.03         0.26         5.83         4.09         2.99         35.           1931.         4.09         4.21         4.66         3.12         4.51         9.13         2.43         4.45         1.67         2.18         0.82         2.90         34.           1932.         4.24         1.74         5.28         1.67         1.63         2.05         2.10         4.24         4.04         5.71         8.41         1.93         2.24         1.78         4.18         4.17         8.41         1.93         2.24         1.78         4.24         5.74         1.18         5.24         1.78         4.17         8.41         1.93         2.27         4.24         5.07         1.10         4.24         5.07         1.10         2.14         2.69         0.34         3.91         0.65         3.2         1.93         4.93         4.93         3.91         0.66         3.2         3.93         1.31         3.57         5.34         2.52         3.47         1.104         5.15         3.79         2.67         1.33         8.19         46.           1937 <td>1928</td> <td>1.66</td> <td>2,00</td> <td>1.56</td> <td>4.68</td> <td>3.08</td> <td>5.56</td> <td>4.14</td> <td>2.45</td> <td>4.47</td> <td>2.88</td> <td>1.85</td> <td>2.61</td> <td>37.60</td>	1928	1.66	2,00	1.56	4.68	3.08	5.56	4.14	2.45	4.47	2.88	1.85	2.61	37.60
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$					7.52						2.38			37-19
1932.				1.66			9 13				2. 18	0.82		35.29 44.17
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				5.28							7.18			41.65
1935. 6.13 3.26 1.52 4.77 1.35 5.07 1.10 2.14 2.69 0.34 3.91 0.66 32. 1936. 6.46 3.66 6.40 3.54 1.70 2.37 1.04 5.75 3.79 2.67 1.33 8.19 46. 1937. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43. 1938. 4.91 2.38 2.42 3.22 4.42 6.30 0.66 3.31 6.00 2.48 2.89 2.85 50. 1939. 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32.  M*ns *3.59 3.29 3.79 3.59 3.13 3.15 3.36 3.71 3.22 3.35 3.55 3.35 44.	1933	2.04	3.77	6.80	7.37	2.74	1.22	2.63	3.41	10.94	3.11	0.65	2.93	47.61
1937. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43. 1938. 4.91 2.38 2.42 3.22 4.42 6.30 0.46 3.31 6.00 2.43 2.89 2.80 50. 1939. 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32.  M'ns *3.59 3.29 3.79 3.59 3.13 3.15 3.36 3.71 3.22 3.35 3.55 3.35 41.	1934	2.67	4.45		3.21	1.56		1.25	1.83	5.67	2 94	1.78	1.64	34.15
1938 · 4.91 2.38 2.42 3.22 4.42 6.30 0.46 3.31 0.00 2.43 2.89 2.80 50. 1939 · 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32. M'ns *3.59 3.29 3.79 3.59 3.13 3.15 3.36 3.71 3.22 3.35 3.55 3.35 41.		6.13	3.20	6.40		1.35				2.09	0.34	3.91		32.94
1938 · 4.91 2.38 2.42 3.22 4.42 6.30 0.46 3.31 0.00 2.43 2.89 2.80 50. 1939 · 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32. M'ns *3.59 3.29 3.79 3.59 3.13 3.15 3.36 3.71 3.22 3.35 3.55 3.35 41.			1.31				2 47			3.60		4.65		43.67
1939. 2.18 3.79 5.23 4.54 1.29 2.70 0.76 2.14 1.01 4.77 1.14 2.91 32. M'ns *3.59 3.29 3.79 3.59 3.13 3.15 3.36 3.71 3.22 3.35 3.55 3.35 41.	1938	4.91	2.38		3. 22		6.30	0.46		6.00		2.89		50.54
M'ns *3.59 3.29 3.79 3.59 3.13 3.15 3.36 3.71 3.22 3.35 3.55 3.35 41.	1939	2.18	3.79				2.70	0.75	2.14					32.45
	M'nc	*2 ==	2.00	2.50	2.50		0.75	2 06	2	-		-	0.00	17.00
3.00 3.47 3.02 3.00 43.												3.55	3.35	41.08
		, 5.03	3.42	3.90	3.19	3.43	3.19	3,43	3.90	3.33	3.47	3.02	3.00	43.23
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Note.—Bold-faced figures indicate greatest and least monthly and annual amounts. \* Computed from the Weather Bureau records of 69 yrs. † Averages 122 yrs. From 1818 to 1822, Dr. Enoch Hale; from 1823 to 1865, Jonathan P. Hall; from 1866 to 1870, Superintendent of Sewers.

## KILLING FROSTS

Year	Latest date in spring	Earliest date in autumn	Year	Latest date in spring	Earliest date in autumn
1872 - 1873 - 1874 - 1875 - 1876 - 1877 - 1880 - 1881 - 1881 - 1882 - 1885 - 1885 - 1889 - 1899 - 1899 - 1899 - 1899 - 1900 - 1902 - 1903 - 1904 - 1905 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 1875 - 18	Mar 30		1906. 1907. 1908. 1909. 1910. 1911. 1912. 1913. 1914. 1915. 1916. 1917. 1918. 1919. 1920. 1921. 1922. 1923. 1924. 1925. 1926. 1927. 1928. 1929. 1930. 1931. 1932. 1933. 1934. 1935. 1936. 1937. 1938. 1939.	April 21 April 21 April 29 Mar 19 April 18 April 9 April 10 April 14 April 14 April 12 April 16 April 16 April 17 April 17 April 20 April 18 April 21 April 21 April 21 April 21 April 21 April 22 April 3 April 3 April 24 April 26 April 27 April 28 April 29 April 29 April 20 April 21 April 22 April 23 April 23 April 26 April 18 April 18 April 18	Oct. 12Oct. 22Nov. 2Oct. 31Oct. 8Oct. 8Oct. 18Nov. 18Nov. 18Nov. 18Nov. 19Oct. 30Nov. 11Oct. 30Nov. 11Oct. 30Nov. 11Oct. 30Nov. 12Oct. 30Nov. 12Oct. 30Nov. 12Oct. 30Oct. 30Oct. 27Nov. 22Oct. 27Nov. 30Oct. 27Nov. 40Oct. 26Oct. 27Nov. 40Oct. 26Oct. 27Nov. 40Oct. 26Oct. 21Oct. 26Oct. 21Oct. 26Oct. 21Oct. 26Oct. 30Oct. 30

Average date last killing frost in spring, April 16. Latest date, May 16, 1882 and 1936. Average date first killing frost in autumn, October 24. Earliest, September 26, 1879.

Prevailing Wind Movement

Wind	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
North   per cent of time.   hourly velocity	11 10	9	8 10	9	7 9	6	5 <b>8</b>	7 8	9	9	11 10	10 11	
Northeast { per cent of time. hourly velocity	4 11	6 10	7 10	11 9	11 8	9 <b>8</b>	6 <b>6</b>	6	7 8	8	6 8	4 9	
East { per cent of time. hourly velocity	4 11	6 9	10 9	14 10	17	16 8	13 <b>6</b>	15 7	12 7	8 7	5 10	9	
Southeast. { per cent of time. hourly velocity	8	4 8	6 <b>8</b>	5 8	6 8	5 7	5 <b>6</b>	7 6	6 7	5 7	4 10	8	
South { per cent of time. hourly velocity	6 9	7 8	8 11	7 11	10 10	9	9 <b>9</b>	9 <b>8</b>	9 <b>10</b>	9	7 10	6 10	
Southwest { per cent of time, hourly velocity	20 11	15 10	17 10	16 11	20 9	25 10	30 9	24 9	23 9	20 10	21 10	20 10	
West { per cent of time. hourly velocity	29 12	29 12	23 12	20 12	17 10	20 10	21 8	19 <b>9</b>	18 9	22 10	25 11	30 12	
Northwest { per cent of time. hourly velocity	22 12	24 12	21 12	18 11	12 10	10 8	11 8	13 8	16 9	19 10	21 10	22 11	
Prevailing direction	w.	w.	w.	w.	sw.	sw.	sw.	sw.	sw.	w.	w.	w.	w.
Average hourly velocity	11	12	12	11	10	10	9	9	9	10	11	11	10

Based on 24 years records: anemometer elevation 188 feet above ground.

Daily Maximum Temperature, 1939

Da*e	January	February	March	April	May	June	July	August	September	October	November	December
1	34 50 31 26 37 46 45 46 45 45 45 45 45 48 35 27 28 34 36 26 28 39 40 43 31 21 21 31 31 31 31 31 31 31 31 31 31 31 31 31	30 32 38 34 32 33 32 37 41 48 48 46 66 61 28 46 45 36 52 51 51	34 44 48 46 46 58 32 28 33 32 28 38 38 45 39 36 41 40 58 41 41 46 40 20 20 20 20 20 20 20 20 20 20 20 20 20	53 44 44 49 51 49 38 43 39 52 47 48 55 54 45 55 56 61 57 55 56 46 47 47 48 58 69 69 69 69 69 69 69 69 69 69	55 53 50 51 71 62 68 65 51 76 65 51 59 53 50 50 51 51 76 65 51 51 51 51 51 51 51 51 51 51 51 51 51	66 65 70 78 81 77 79 66 64 72 76 62 73 77 72 72 75 75 75 75 75 75 75 75 75 75 75 75 75	85 77 83 91 91 91 98 99 91 75 75 77 73 75 77 71 73 77 71 73 77 77 80 81 80 81 81 81 82 83 84 85 86 87 87 87 87 87 87 87 87 87 87	89 75 83 84 85 88 88 88 88 88 88 88 88 89 72 80 75 80 76 76 76 76 76 66 66	71 86 82 77 72 77 66 72 69 70 72 69 90 81 71 73 73 79 96 81 71 73 74 75 75 76 75 75 75 75 75 75 75 75 75 75 75 75 75	72 56 4 62 80 74 73 65 75 65 66 74 66 67 45 59 45 65 67 65 66 67 48 80 60 60 60 60 60 60 60 60 60 60 60 60 60	53 57 47 49 53 55 52 58 44 55 57 46 41 57 46 46 37 46 41 42 43 46 47 47 48 48 50 50 48 50 48 50 48 50 48 50 48 50 48 50 48 50 48 50 48 50 48 50 48 50 48 50 48 50 50 50 50 50 50 50 50 50 50 50 50 50	57 56 57 48 89 44 48 41 51 89 84 46 46 47 41 57 43 83 82 83 83 83 83 83 83 83 83 83 83 83 83 83
Tean	35. 0	40.6	40.3	50. 4	64.8	73.1	81.0	81.5	73.4	63. 1	48.5	40.5

Daily Minimum Temperature, 1939

					,		,				,	
Date	January	February	March	April	May	June	July	August	September	October	November	December
1	29 29 16 18 17 36 35 32 39 20 16 22 23 14 16 19 7 7 5 4 4 19 7 7 5 4 14	12 17 26 22 17 29 25 22 21 17 4 25 30 10 9 31 17 14 20 22 30 35 5 33 35 35 35 35 35 35 35 35 35 35 3	34	38 36 33 31 31 31 34 32 34 32 37 37 37 37 37 37 46 46 42 41 42 41 42 41 42 41 42 41 42 43 43 44 43 45 45 46 46 46 46 46 46 46 46 46 46 46 46 46	39 40 40 42 42 44 47 47 47 47 47 47 48 58 58 59 42 42 43 43 44 47 47 47 47 47 47 47 47 47 47 47 47	58 52 58 52 58 58 56 60 61 67 64 54 55 56 60 60 60 54 55 60 60 60 60 60 60 60 60 60 60 60 60 60	67 60 66 68 72 73 70 69 69 60 68 64 65 65 58 66 67 67 66 66 66 66 67	71 65 66 67 66 64 67 72 68 68 65 65 64 67 67 67 67 67 68 65 65 64 67 67 67 67 67 67 67 67 67 67 67 67 67	57 64 665 58 55 56 56 56 56 56 58 64 58 64 58 58 64 58 58 64 58 58 64 58 58 64 58 58 66 58 58 66 58 58 66 58 58 66 58 58 58 58 58 58 58 58 58 58 58 58 58	53 49 50 49 52 58 58 58 52 58 52 60 57 36 31 40 54 47 48 37 32 43 34 40 34 43 44 36 34 43	43 39 36 31 36 39 40 44 44 43 30 29 38 38 36 26 27 27 27 27 27 27 27 27 27 27	86 42 44 34 32 32 24 33 24 23 38 25 118 25 19 16 29 37 38 38 38 24 17 20 10 6 10 10 10 10 10 10 10 10 10 10 10 10 10
Mean	20.7	23.7	26. 1	36.9	48.1	58.2	63.6	66.2	55. 6	45. 2	33.0	26.4

Daily Precipitation, 1939

Day	January	February	March	April	Мау	June	July	August	September	October	November	December
16	* . 19 * . 03 * . 05 	* T. * .01 * .47 * .05 * .22 * * .23 .22 * * .24 * .04 * .74 * .06 * .25 * T74 * .73	* .30 * .32 * .02 .31 * .02 * .14 * .57 .35 .87 * .T. * T. .00 * .40	* .56	T		T	.01 .55 .02 .02 .02 .03 .05 .05 .05 .09 .09			T	. 69 . 34 * T. . 24 * . 13 * . 07 T. T. T. T. T. T. T. T. T. T. T. T. T.
10001	2.10	0.10	0.20	1.01	1.23	2. 10	0. 10	2. 14	1.01	1	1.11	2.01

## Daily Cloudiness, 1939 [Daylight hours; scale 0 to 10]

			[ Da	right	nours.	scare	0 10 1	UJ	-		COLUMN TO SECURITION OF	
Day	January	February	March	April	May	June	July	August	September	October	November	December
1	6 10 10 10 6 10 8 5 6 8 6 6 3 10 10 1 1 10 4 4 8 9 9 9 10 0 10 10 10 10 10 10 10 10 10 10 10 1	0 10 10 7 9 9 10 7 2 2 10 7 3 9 10 10 7 3 9 10 10 0 0 10 0 8 10 0 8 10 0 10 0 10	8   3   0   10   10   10   10   10   10	2 10 8 8 8 5 9 6 6 10 9 10 9 10 5 8 8 6 6 8 10 10 5 10 8 9 7 7 1 8 8 9 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	7 6 10 9 7 6 5 10 10 3 6 6 2 10 2 2 4 7 7 8 8 7 8 10 10 10 7 5 5 8 9 9 7 2 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	8 4 1. 7 7 7 5 5 9 7 7 9 3 5 5 6 10 3 4 8 8 2 2 5 8 8 1 2 100 6 6 5 6 10	55 55 55 74 68 95 55 76 94 66 77 57 23 88 74 47 88 96 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 10 10 10 10 10 10 10 10 10 10 10 10	4 7 5 9 5 5 6 6 7 8 8 3 1 1 7 4 4 3 4 7 7 10 10 10 10 7 5 8 9 9 7 8 9 9 7 8 9 9 7 8 9 9 7 8 9 9 7 8 9 9 7 8 9 9 9 7 8 8 9 9 7 8 8 9 9 7 8 8 9 9 7 8 8 9 9 7 8 8 9 9 7 8 8 9 9 7 8 8 9 9 7 8 8 8 9 9 7 8 8 8 9 7 8 8 8 9 8 9	4 4 9 9 2 9 4 1 100 5 100 4 8 8 1 2 1 1 0 0 7 7 0 0 100 100 100 100 100 8	10 10 10 10 10 2 7 3 8 9 5 7 10 0 0 0 7 7 2 2 4 4 7 8 8 0 0 0 0 10 10 8 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10	0 4 1 4 10 0 0 5 6 6 3 8 3 2 2 8 8 1 1 1 6 6 1 3 5 9 10 10 2 9 9 10 2 7 7 4 4 3 7 7 4 8 8	1 10 10 6 9 9 9 8 9 10 10 2 10 7 0 10 9 9 8 8 10 10 10 6 6 6 9 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10
					1			1				

Note.—Clear (0 to 3). Partly cloudy (4 to 7). Cloudy (8 to 10).

T. indicates a trace. \*Wholly or partly snow.



## U.S. DEPARTMENT OF COMMERCE WEATHER BUREAU

## ANNUAL METEOROLOGICAL SUMMARY

WITH COMPARATIVE DATA
1940

BOSTON, MASS.

Kirstein Business Library FEB 27 1941

G. H. NOYES

BOSTON, MASS.

STIMMARY FOR VEAR 1940 ROSTON WASS

			-	,			HU		-2						
	Min. temp.	0° or below.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Te M	32° or below.	28	27	24	4	0	0	0	0	0	D	00	21	117
	Max. temp.	900 or above.	0	0	0	0	0	-	5	0	0	0	0	0	9
	IM:	320 or below,	20	9	5	0	0	0	0	0	0	0	0	5	36
lays.		Dense fog.	-	0	-	တ	-	2	-	0	-	0	0	4	14
of d		Thunderstorms.	0	0	2	1	2	က	9	-	2	-	0		19
Number of days.		Snow ( .01 in. or n	1~	6	2	2	0	0	0	0	0	0	77	2	26
Nun	no:	itatiqisərq iltiW erom ro .ni 10.0)	10	12	11	13	14	13	15	7	==	6	14	13	139
		Cloudy.	=	13	11	15	15	Ξ	1	9	10	9	17	18	140
1		Partly cloudy.	- 2	∞	6	6	12	Ξ	15	10	∞	13	1~	9	113
		Clear.	15	∞	==	9	4	∞	6	15	12	12	9	7	113
	рег	Gales (32 miles)	4	9		4	_	0	0	0	7	0	-	1	19
	ڏب	Date.	15	14	23	21	Ξ	20	30	23	2	15	12	10	Feb. 14
<u>.</u>	Highest	Direction.	se.	ne.	W.	ne.	S	nw.	ж.	SW.	ne.	nw.	sw.	SW.	ne.
Wind.	H	Velocity.	36	51	34	43	32	31	53	25	33	31	43	34	51
, 1014,	.noite	perib zailisvera	W.	nw.	W.	nw.	v.	W.	sw.	sw.	nw.	nw.	M	nw.	nw.
Moteor	-9A	Average hourly, locity.	12.9	12.7	12.9	13.3	11.7	11.0	× ×	9.7	9.8	11.4	11.8	8.6	11.3
un- nine	pje.	Percent of possi	29	20	58	49	49	09	64	E	09	62	33	33	55
Sun- shine	.8	Number of hour	174	153	214	197	221	275	293	305	224	213	97	66	2460
जिल्ला ।		Snowfall.	4.6	23.8	0.3	1.5	0	0	0	0	0	T.	9 5	3.5	43.2
tation.		Date.	14-15	14-15	4- 5	20-21	31- 1	24-25	3-4	73	25	30-31	14-15	16-17	Feb. 14-15
	·san	od ka ni tastasta	1.31	1.79	1.68	1.48	1.34	0.56	1.50	0.48	1.11	0.44	1.42	1.04	1.79
Preci		Total.	1.68	4.78	3.83	4.58	3.28	1.80	3.17	0.85	2.32	0.76	6.24	2.76	05
0 0	200	7:30 p. m.	28	99	62	67	89	64	69	72 (	17		69	89	67  36.
Relative	(per cent.)	1:30 p. m.	54	09	55	09	62	54	99	57	26	46	19	61	
Re	(per	7:30 a. m.	69	74	99	69	74	25	73	33			- 22	74	72
		Date.		27	24	14	13	22	2	25	56	55	56	4	Jec.
	ies.	Lowest.			14	- 56	43	46	22	46	45		17	2	2
ure.	Extremes.	Date.	15	21	31	30	19	13	56	17	21	13	5	25	July 26
Temperature.	Ħ	Highest.	52	47	09	75	75	-06	95	98	98		71	58	95 J
Tem		Monthly.	23.0	29.6	33.1	43.6	56.2	65.1	71.6	68.4	63.3	50.6	42.9	34.3	48.5
	Mean.	.muminiM	16.4	23.2	26.7	36.5	48.8	56.7	63.2	60.3	55.3	42.4	36.3	26.7	41.0
1	N	.mnmixsM	29.6	36.0 2	39.5 2	50.6	63.7 4	73.5 5	79.9 6	76.6	71.3 5	58.7	49.5	41.9	55.9 4
4-							:	:	:						
		Month	January	February.	March	April	May	June	July	August	September	October	November	December.	Year
					13	70	67								

Elevation of instruments above ground: thermometers, 33 feet; raingage, 3 feet; anemometer 62 feet.

# COMPARATIVE DATA AND EXTREMES

Precipitation   Precipitatio	_					-	
Tomperature   Transperature		1	Minimum temp.	59		20	
Tamperature			32° or below	59	256 199 100 100 100 100 100 100 100 100 100	106	
Temperature  Tempe		ays		59	000000747-000	1	ů
Temperature  Tempe		of da		800		14	ווטה
Temperature  Tempe		ber	Thunderstorms	80	∞ ∞ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	18	1003
Temperature  Tempe		nun		풊	-512 cm 000 cm cm cm	45	brev
Temperature  Tempe		rage	Rain, .01 or more	09	25211505 9901	125	0.1
Temperature  Tempe		Ave	Cloudy	8	122 10 10 10 10 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13	129	11.60
Temperature  Tempe			Partly cloudy	63	0 % c 0 1 2 c c c c c c c c c c c c c c c c c c	118	occn
Temperature  Tempe			Clear	63	600666227	118	Has
Temperature  Tempe			Year	09	1886 1877 1891 1893 1903 1898 1898 1938 1939 1900	19	
Temperature  Tempe		nd		09	ne. ne. ne. s. s. s. v. ne. ne. e.	oò .	than 1.
Temperature  Tempe		‡ Wi	Highest velocity	99	00 01 01 01 01 01 01 01 01 01 01 01 01 0	73	ess
Temperature  Tempe			Prevailing direc-	9		-	 
Temperature  Temperature  35.8 20.0 27.9 3.0 3.0 4.6 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6				09	11.2 10.0 10.0 10.0 11.0 11.0	10.3	ed.
Temperature  Temperature  35.8 20.0 27.9 3.0 3.0 4.6 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6		nine	Регсепь	4.5	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	22	ot us
Temperature  Temperature  35.8 20.0 27.9 3.0 3.0 4.6 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6		Suns	Total hours	8	143 166 227 227 287 293 270 228 196 141 183	2568	ord no
Temperature  Temperature  35.8 20.0 27.9 3.0 3.0 4.6 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6		ve ity nt	.m.q 8	6	69 172 172 172 173 173 173 173 173 173 173 173 173 173	7.1	, rec
Temperature  Temperature  35.8 20.0 27.9 3.0 3.0 4.6 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6		elati imid ir ce	Noon-local time	Ξ	62 62 62 63 64 65 65 65 65 65 65 65 65 65 65 65 65 65	19	feet
Temperature  Temperature  35.8 20.0 27.9 3.0 3.0 4.6 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6			8 a. m.	40	21258521244884	73	r 360
Temperature  Temperature  35.8 20.0 27.9 3.0 3.0 4.6 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6			7621	69	1897 1921 1892 1917 1917 1884 1898 1909	1921	ometer
Temperature  Temperature  35.8 20.0 27.9 3.0 3.0 4.6 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6	1	Ę		69		16.0	anem
Temperature  Temperature  Temperature  Temperature  Temperature  Temperature  Temperature  Temperature  Temperature  Total St. 1		tatio	Ilslwons sgrayA	69	17. 5 12. 8 12. 8 12. 8 1. 7 1. 7 1. 7 1. 7 1. 7 1. 7	0 1	935.
Temperature  Temperature  Temperature  Temperature  Temperature  Temperature  Temperature  Temperature  Temperature  Total St. 1	-	recipi	Year	65	1881 1886 1877 1921 1920 1875 1933 1895 1895 1895 1895	1921	nber 1
Temperature  Tempe		£4		65			Decer
Temperature  Tempe			Normal	20			933 to
Month daily Month daily record daily record daily record daily record daily record daily sears. 35.8 20.0 27.9 70 1876 -13 Marv. 35.8 20.0 27.9 70 1876 -13 Marv. 35.8 25.8 25.0 27.9 70 1876 -13 Marv. 35.2 25.8 8.8 1921 -13 Marv. 77.8 65.7 8 65.5 100 1925 88 1921 -13 Marv. 77.8 65.5 100 1925 88 1938 11 Marv. 77.8 65.5 86.5 100 1925 88 1938 11 Marv. 77.8 65.5 100 1925 88 1938 11 Marv. 77.8 100 1925 88 1938 11 Marv. 77.8 100 1925 88 1938 11 Marv. 77.8 100 1925			Хеат	62	1882 1934 1872 1873 1873 1940 1940 1940 1875 1875	1934	
Month			Absolute lowest	29	1 1 1 2 2 4 5 6 5 4 5 2 7 1 1 1 2 1 2 1 1 2 1 1 1 1 1 1 1 1 1	-18	d: Oc
Month		are	Д681	33	1876 1930 1931 1938 1880 1925 1911 1911 1881 1931 1931	1911	Groun
Month		perat	Absolute highest	62	05 05 05 05 05 05 05 05 05 05 05 05 05 0	104	AVOC
Month Month L'gth of Feb. 38.6 8 20.0 Ratinum April 54.6 88.2 June 77.8 80.1 88.6 June 75.2 55.2 88.8 Anglet 77.8 62.0 Sept. 7		Temi	Normal	46	22.23.44.75.77.75.66.66.65.41.75.75.75.75.75.75.75.75.75.75.75.75.75.		Foot at
Month Month 17. Werage daily record 13. Sept. 77. 8 Se				59	22.02.02.02.02.02.02.03.03.03.03.03.03.03.03.03.03.03.03.03.	41.6	188
Month  L'gth of record Jan. April. April. July July July July July July July July			Vlisb esseed Avily mumixsm	69	835.8 86.6 87.5 87.7 77.7 89.1 89.3 61.6 89.3 61.6 89.3	57.	omore
			Month	L'gth of	record years. Jan. Reb. May. June. June. June. June. June. June. June. October. Nov.	Year	

# Anemometer, 188 feet above ground: October 1935 to December 1939, an

Monthly and Annual Mean	n Temperatures
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Year	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug	Sept	Oct.	Nov	Dec.	An'l.
1840	20.0	30.8	34.4	48.4	55.6	65.2	71.8	70.3	59.9	49.5	36,6	24.7	1
1841	27.9	22.3	33.1	41.1	53.2	67.4	69.8	68.5	62.3	44.6	36.4	30.0	47.4
1842	27.2	31.6	37.4	44.4	51.7	62,6	72.7	67.5	58.2	47.9	34.8	23.5	46.6
1843	29.7	16.8	25.4	43.5	54.5	61.2	69.2	69.9	60.6	47.5	34.3	26.9	45.2
1844	15.4	24.6	33.8	48.4	57.4	65.1	68.2	67.8	64.0	45.5	34.3	27.0	46.0
1845	27.2	27.6	36.2	46.3	56.6	68. I	72.I	71.3	60.2	51.8	44.3	25.6	48.9
1846	27.4	21.3	38.2	49.5	55.8	65.0	71.6	70.2	66.7	51.2	43.2	27.4	49.0
1847	26.4	25.9	30.8	42.0	53 - 4	64.7	73.0	68.1	61.0	47.7	44.I	34.8	47.7
1848	29.1	24.7	32.2	45.5	57.8	64.8	70.2	69.6	58.6	49.8	36.2	34.4	47.7
1849	21.0	18.4	35.8	43 - 5	52.5	67.7	71.6	69.2	60.0	49.2	45.0	28.9	46.9
1850	27.2	29.4	32.6	42.4	51.4	67.2	71.6	67.0	61.0	51.4	41.0	25.2	47.3
1851	25.5	29.9	36.2	44.5	55.5	64.8	71.4	68.0	61.1	52.9	34.8	22.9	47.3
1852	20.8	27.4	32.9	41.0	56.8	67.4	72.4	66.6	62.1	50.4	38.3	35.0	47.6
1853	25.8	29.2	35.8	45.I	56.4	66.8	70.6	67.5	61.2	47.8	39.6	26.4	47.7
1854	23.9	23.5	32.4	42.3	58.7	65.6	74.4	68.4	61.5	52.5	41.2	24.4	47 • 4
1855	28.4	20.2	32.3	44.I	53.4	65.5	72.2	67.3	61.4	51.5	40.0	28.6	47.1
1856	16.8	20.9	27.0	44.0	52.6	68. r	72.7	68.2	63.0	51.1	38.7	24.0	45.5
1857 1858	15.2 30.9	33.6	32.9	41.8	54.7	63.4	69.9	66.6	61.8	51.3	41.3	33.2 28.0	47.4
1859	25.4	28.5	38.6	42.9	58.1	64.2	69.7	68.0	58.8	46.5	35·3 42.0	24.4	47.1
1860	27.7	25.8	38.4	44.2	56.1	65.4	63.1.	69.5	59.7	50.8	43.4	26.6	47.3
1861	23.0	32.6	35.0	44.3	54.5	65.9	71.9	67.6	62.0	54.2	38.4	30.6	48.3
1862	22.9	22.7	32.7	44.0	58.3	63.6	69.3	70.I	60.1	53.0	40.0	27.6	47.0
1863	28.8	25.1	27.2	44.2	59.1	65.3	73.2	73.2	60.3	51.9	42.3	25.7	48.0
1864	25.0	27.4	34.4	42.I	56.4	67.8	73.6	73.3	60.1	47.8	39.6	27.4	47.9
1865	16.8	24.2	37.9	49.6	58.1	73.I	73 - 4	71.1	66.7	48.2	40.2	29.6	49.1
1866	22.4	27.9	32.8	47.8	53.4	65.1	74.4	65.5	62.0	49.6	41.6	27.2	47.6
1867	18.6	32.2	30.8	44.7	53. I	66.9	69.2	70.4	60.0	50.9	38.7	23.1	46.6
1868	22.0	20. I	32.3	42.I	50.8	64.2	73.6	69.7	59.9	46.4	36.5	25.6	45.3
1869	27.9	28.9	26.6	43.6	54.0	64.2	70.8	67.6	62.3	48.7	36.4	28.4	46.6
1870	32.7	24.5	30.0	46.6	57.6	68.5	72.9	71.8	62.7	53.3	41.1	32.6	49.5
M'ns.	24.5	25.8	33.2	44.5	55.2	66.1	71.5	68.9	61.3	49-9	39.3	27.7	47.3

These temperature records were made at the Astronomical Observatory of Harvard College, which is located on Concord Avenue and Bond Street, Cambridge, Mass., about three miles from the Weather Bureau station in Boston, Mass.

### MISCELLANEOUS DATA FOR 1940.

Barometric Pressure (reduced to sea level).—Mean, 29.99 inches, 1015.4 millibars; highest, 30.64 inches, 1037.6 millibars; December 19; lowest, 28.98 inches, 981.4 millibars, Feb., 11.

Temperature.—Greatest monthly range, 56°, December; least monthly range, 32°, May. Highest mean temperature of three consecutive days, 80°, July 25-27; lowest mean temperature of three consecutive days, 15°, January 17-19.

Precipitation.—Longest period without precipitation, 11 days, May 6-16; longest period with precipitation, 6 days, May 21-26. Greatest amount in 24 consecutive hours, 1.79 inches, February 14-15. Maximum amount in 5 minutes, 0.37 inch, July 30; 10 minutes, 0.60 inch, July 30; 15 minutes, 0.63 inch, July 30; 30 minutes, 0.63 inch, July 30; 1 hour, 0.64 inch, July 30.

Frost.—Last killing frost in spring, April 22. First killing frost in autumn, October 19.

Snow.—Greatest snowfall in 24 hours, 14.0 inches, February 14-15. Greatest depth of snow on ground, 13.0 inches, February 15. Last snow in spring occurred on April 22; first in autumn occurred on October 21.

Thunderstorms.—First thunderstorm occurred on March 20; last thunderstorm occurred on October 15.

## Monthly and Annual Mean Temperatures

Tear	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec	An'l
871	26.0	28.6	41.5	47.0	57.9	65.9	70.8	71.7	59.3	54.0	36.6	27.9	48.
871 872	27.1	28.1	26.0	46.6	59.4	68.9	75.6	73.0	64.5	51.8	40.6	23.2	48.
873	25.1	26.3	33.9	45.0	56.8	67.3	72.9	69.8		53.5	33.4	32.0	48.
		27.0	34 • 4	38.8	55-4	66.0	72.6	68.0	64.4	53.2	41.6	31.3	48.
15	20.1	22.3	31.4	42.6	57.9	66.7	72.I	71.0	60.6	50.2	35.0	29.6	46.
		27.4	33 - 4	43.9	54.6	66.8	74.0	70.2	59.9	48.2	41.4	22.2	47.
77	24.8	34.2	34.9	44.2	55.0 56.5		71.1	72.2	65.2	52.0	44.2	36. 4	50.
		30.6	39.6	48.2	60.2	64.6	73.7	69.7	64.2	56.1	40.8	30.3	50
379 380	24.2	24.6	33.6	42.4 46.4	63.7	64.8	70.8	69.3	62.0	57.6	38.2	32·3 26.7	40
331	34.6	31.8	33.2	43.6	56.6		70.2	71.4	67.6	54.4	43.6	20.7	50.
882	26.0		37.2 36.0	42.8	50.6	61.7	73.2	71.5	64.0	55.4	39.0	39.0	49.
883	24.4	30.4	30.8	45.2	56.5	70.1	71.7	68.2	59.8	55.4 47.7	42.8	29.1	47
		31.2	34.2	43.8	54.8	67.2	68.6	69.7	66.9	52.6	41.4	33.8	49
\$5	27.4	20.6	27.6	47.2	53.2	66.8	71.8	67.8	60.1	51.6	44.0	32.7	47
86	25.8	26.6	33.3	48.6	56.8	63.2	71.2	67.8 68.2	63.1	52.0	43.2	28.4	48.
587	25.0	28.7	31.5	44.2	59.6	65.2	74.6	67.6	59.8	51.5	42.2	32.4	48
888.	20.1	28.3	32.2	42.6	53.0	66.8	74.6 68.8	70.2	59.8	47.8	43.8	34.6	47.
88Q	35 8	26.0	38.2	47.8	53.0	69.2	69.4	67.4	62.8	48.5	44.6	38.0	50
90	32.4	33.2	34.9	46.3	57.0	64.2	71.0	68.9	62.9	51.0	41.8	26.0	49
oI	3I.I	32.0	33.6	48.0	55.8	65.0	69.0	70.0	66.7	51.6	41.4	40.4	50
02	28.3	28.4	32.0	48.4		69.6		70.2	62.5	52.7	41.2	29.9	49
93	20.7	26.8	32.8	44.4	55.9 56.3	64.8	73.0	69.6	60.0	54.8	42.2	30.4	47
004	30. I	26.6	42.5	47.0	57.6	68.8	73.7	68.0	64.8	54.0	38.2	32.2	50
95	28.8	24.6	34.6	46.0	60.2	66.8	73·7 69·3	71.0	65.7	49.6	45.4	35.6	50 49
600	24.0	28.7	32.0	47.2	60.3	66.1	71.8	70.7	62.2	50.2	46.5	30.4	49
507.	1 28 4	30.9	36.9	49.0	57.6	62.3	71.6	69.6	63.1	54.4	41.4	34.0	49
598	25.7	32.8	42.8	43.8	55.8	65.8	71.8	73.I	66.2	54.2	42.0	32.0	50
399	29.0	26.8	34.0	48.I	57.8	70.0	72.6	68.8	62.0	54 - 5	42.1	36.2	50
00	30.0	29.3	34.0	48.6	55-2	68.6	73.8	71.1	65.0	56.6	44.6	34 - 4	50
01	27.6	24.2	36.2	43.5	54 - 3	68.2	73·4 67·8	70.7	65.4	54 • 4	37.2	32.4	49
902	26.6	28.8	43.4	48.4	57 - 6	64.3	67.8	67.6	62.6	53.6	46.2	28.5	49
903	26.8	31.4	44.4	47.8	58.5	59.8	71.4	65.0	64.4	53.9	40.0	29.0	49
04	21.6	22.6	34.6	44.6		64.0	71.4	68.7	02.5	50.6	38.2	25.8	47
905	25.1	23.4	37.2	46.8	57.6	65.2	73.2	68.6	62.0	53.6	41.6	35.1	49.
000	35.7	29.7	32.4	47.2	58.0	66.4	70. I	72.0	65.0	52.5	41.7	29.1	50
07	27.0	21.6	37.9 38.6	43.4	52.4	65.1	72.4	69.6	64.4	49.8	43.2	37 - 2	48
305	31.0	26.8	38.6		59.0	69.8	74.1	69.4	05.8	55 - 4	43.6	33.3	51.
909	30.3	32.6	36.8	47.8	55.8	69.4	71.5	69.4	62.6	52.8	46.4		50
910		29.5	42.0	51.6	57 - 6	65.2	74.9	68.8	62.8	56.0	41.2	27.5	50.
911	31.8	27.0	35.4	46. 1	62.4	65.6	77.1	69.0	62.6	52.6	41.8	39 • 4	50.
12	21.4	27.7	36.0	47.4	58.6	68.0	73.2	69.0	63.7	57 . 4	45.6	38.5	50,
913	39.2	27.7	42.4	48.0	55.2	67.5	73.8	70.8	62.0	56.4	40.5	37.8	52
14	28.7	24.3	36.7	45.3	60.4	67.3		70.4	64.6	57.0	42.7	30.4	49
915	33.0	33.2	35.8	50.8	56.6	63.9	70.I 72.6	71.8	6.00	55.7	45.4	34.2	51
16	33.0	25.5	30.6	45.6		62.6	72.0	72.8	65.0	55.5	42.6	32.6	49
17	30.2 21.0	26.9	37.2 36.7	44.0	50.7		73.3		61.2	51.9	39.4	23.7	47
710	33.2	32.6	40.8	45.9	63.3	63.9	74.0	70·4 68.8	63.9	55. 1	45.0	34·7 28.7	51
920	21.0	27.6	39.2	45.0	54.6	65.8	72.4	72.0	65.2	59.8	41.7	35.6	50
121	32.1	32.6	46.2	51.8	58.0	68.2	73.2	69.8	68.5	55.2	41.6	31.4	52
22	27.2	32.0	39.8	48.7	61.4	68.6	72.0	70.4	65.2	55.1	43.8	30.9	51
23	27.2 27.0 31.9	23.4	33.9	48.2	57.6		70.0	60.4	64.2	55.5	44.6	40.4	50
21	31.0	26.6	37.4	47.2	56.2	69.3	73.8	69.4 71.8	62.2	55·5 54.6	44.6	31.1	50
25	27.2	38.0	43.0	49.8	57 - 4	70.9	72.4	71.2	64.0	49.3	43.6	33.6	51
	31.0	27.8	34.2	44.8	56.0	64.3	70.5	70.4	62.4	53 • 4	44.2	28.6	49
		32.6	41.6	48.3	55.2	65.0	72.2	67.4	65.0	57.9	49.6	36.0	51
28	33.0	29.6	37.0	46.8	55.4	05.0	73.2	73.6	62.4	56.6	44.8	38.5	51
129.00	29.0	31.7	41.4	47.I	55·4 61.0	68.4	72.6	73.6 69.3	65.2	53.2	44.7	32.6	51
30	31.8	34 · I	38.3	47.6	59.4	72.4	72.6	70.5	69.4	53.0	45.0	33.2	52
31	30.6	30.6	39.3	50.2	60.3	67.2	74.0	72.2	66.9	58.5	49.4	36.6	53
32	35.8	30.6	35.6	47 - 4	60.2	66.4	72.8	74.0	65.2	57·I	42.8	28. T	52.
33	37.8	33.7	35.7	46.5	61.6	69.6	70.8	74.0 71.8	65.8	52.7	38.3	26.8	50
34	29.6	17.5	35.1	48.0	60.6	66.9	73.2	67.3	64.6	49.6	45.6	28.4	48
35	23.2	27.8	38.4	45.2	55.5	65.5	72.6	70.7	61.4 62.6	53.8	45.4	27.1	48.
36	28.2	22.8	41.8	45.2	60.6	60.2	71.1	69.7		54-4	39.5	35.0	49
937	37·4 28.0	33.2	34.1	45.2	59.1	66.4	73.2	74.6	63.0	52.6	44.0	31.2	51.
938	28.0	30.6	39.1	48.7	55.8	67.2	71.8	73.6	62.2	56.0	46.4	34.0	51.
939	27.8	32.2	33.2	43.6	56.4	65.6	72.3	73.8	64.5	54.2	40.8	33.4	49
940	23.0	29.6	33.I	43.6	56.2	65.1	71.6	68.4	63.3	50.6	42.9	34.3	48.
M'ns	28.5	28.5	36.4	46.4	57 - 5	66.5	72. I	70.2	63.6	53.5	42.5	32.2	49
	3		0 - 4	1	37.3		1	,	3,5	33.3	13	3-1-2	7,

Note.—Bold-face figures indicate highest and lowest monthly means.

## SEASONAL SNOWFALL.

Years	Oct.	Nov.	Dec.	Jan,	Feb.	Mar.	Apr.	May	Season
				-	-	-	-4	84	
1871-2 1872-3	0	T.	12.3	3·4 11.6	8.3	17.3 5.2	T.	T.	44.3
1873-74 1874-75 1875-6 1875-7 1877-8 1878-9 1879-0 1880-1	0	7.5	13.7	20.3	22.7	3.9	28.3	0	49· I 96.4
1874-5	0	7.5 T. T.	5.7	10.4	0.3	27.3	6.3 T.	0	50.0 10.0
1876-7	0	0.3 T.	9.0	17.5	5·4 T.	3.0 15.5 T.	T.	0	42.3
1877-8	T.		0.8	14.3	12.6		0	0	27.7
1870-0	0	0.3 6.0	18.6	18.2	11.9	7.8	4.0	0	43·4 54·2
1880-1	0	0.8	19.2 T.	20.5	9.0	3.1	4.2	0	56.8
7922-2	0	1.5	6.0	15.4 9.6	9.0	5.6 4.3	T	0	38.9
1883-4 1884-5 1885-6 1886-7	0	T.	24.4	11.9	12.5	7.7	9.5 T.	0	66.0
1884-5	0,5	4.8	2.3	3.9	3.3	9.5	T. T.	0	24.3
1886-7	0	о. 5 Т. Т.	5.5	21.5	4.0 12.0	4.5	15.0	0	36.0 73.0
1887-8	0	T.	6.5 T.	13.1	9.6	12.0	T.	T.	41.2
1888-9	0	4.8 T.	4.0	4·5 8·5	7·5 6.3	2.2	0	0	19.0
1890-1	o	Ť.	14.5 T.	14.8	13.8	16.2	T.	0	59.3
1891-2	Т.	0		12.0	11.5	20.0	0	0	43.5
1803-4	0	3.0	18.5	14.6	35·3 21.6	4.5 T.	7.9 8.5	0	67.3
1894-5	0	6.7 T.	13.5	13.9	8.8	3.8	0.5	0	47.2
1895-6	0	2.2	5.2 8.6	9.5 18.2	9.5	14.5	0.2 T.	0	38.9
1897-8	0	8.1	7.8	16.3	11.5	3.3	2.2	0	51.9
1898-9	T.	17.8	7.7 T.	6.1	30.2	9·3 7.6 <b>T</b> .	T.	T.	71.1
1000-1	0	0.I 0.I	0.8	8.3 7.8	9.0	T.	0	0	25.0 17.5
1901-2	0	0	12.6	II.O	13.0	7.5	T.	0	44.I
1902-3	Т.	T.	22.8	4.2 35.7	14.7	8.9	1.	0	42.0 73.1
1904-5	T.	T.	12.0	21.3	8.0	3.6	T.	0	44.9
1905-6	0	T.	3.5	6.1	6.1	21.9	T.	T.	37.6
1900-7	0	1.I 0	7.0	16.1	25.5	6.6	3.1	0	67.9
1883-6 1886-7 1887-8 1888-9 1889-0 1889-1 1890-1 1891-2 1892-3 1893-4 1894-5 1896-7 1897-8 1898-9 1900-1 1901-2 1902-3 1904-5 1905-6 1906-7 1907-8 1908-9 1909-0 1910-1 1911-2 1912-3 1913-4 1914-5 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-6 1915-7 1917-8 1918-9 1919-0 1920-1 1920-1 1920-1 1920-1	0	T.	3.5	11.2	2.3	3.1	0	0	20. I
1909-0	Т.	T.	12.3	0.7	12.6	0.2 3.I	7.7	0	37.0
1911-2	0	0.3	3.7	17.8	0.2	9.1	0.5	o	31.6
1912-3	0.4	°.3 T.	9.2	0.3	7.7	0.5	1.4	0	19.4
1913-4	°. 4 T.	T.	0.9	7.0	20.6	5.2 T.	2.0 6.1	0	39.4
1915-6	0	0.2	6.7	4.8	30.3	33.0	4.2	0	79.2
1910-7	0	0.7	9.5	13.1	8.9	12.9	9.1	Т.	54.2 45.7
1918-9	0	T.	7.0	4.1	6.2	2.4	4.2 T.	0	21.1
1919-0	0	0.2	2.9	24.8 3.6	32.5 23.2	T.	2.0 T.	T.	73.4
1921-2	0	1.6	4.4	2.7	15.5	10.1		0	34.1
1921-2 1922-3 1923-4 1924-5 1925-6 1926-7 1927-8	0	0.9 T.	14.7	28.0	14.3	10.6	3.3 T.	0	68.5
1923-4	0	0.5	3.0	8.5	10. 4 T.	7.4 T.	3.0 T.	0	32·3 21·4
1925-6	T.	o. 5 T.	0.5	7.4	27.6	2.8	) m	0	38. 3
1926-7	0	T.	24. 2 T	16. I 5. I	19.2	0.6	0, 2 T.	0	60.3
1927-6	T.	1.4	4.6	13.5	21.4	4.0		0	45.5
	T.	3.0	10.6	7.7	9.5	0.6	T.	0	31.4
1929-0 1930-1 1931-2 1932-3 1933-4 1934-5 1935-6 1936-7 1937-8 1938-9	0	0.1 T.	7.7	6.2	14.0	7.3 5.8	T. T.	0	40.8
1932-3	0	T.	8.6	0.8	20.6	5. I	5.0	0	40.6
1933-4	T.	2.9 T.	15.6	26.7	32.9 13.1	10.5	T.	0	62.7
1935-6	0	1.0	0.3	12.7	12.6	2.9	T.	0	29.5
1936-7	0	4.4	0.7	2.0	T.	1.9	T.	0	9.0
1938-9	0	0.3	4.6	29.6	4.7	16.5	0.9	0	45.7
	0	1.0	6.5	4.6	4.7 23 8	0.3	1.5	0	37 - 7
1940-1	T.	8.5	4.5					•••••	
Means,	T.	1.7	7.6	11.5	12.8	7.3	2. I	T.	43.0

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Hours	O.T	Sinn	shin	A

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
		1	11		1	· · · · ·	-			. [	1		
1893		161	221	212	219	222	289	241	231	219	184	130	0550
1894	135	159	222 215	203 202	260	286 254	340 253	275 289	216 255	165 208	143 110	148 123	2556 2557
1895	143	218	208	246	263	260	235	262	191	132	110	184	2412
1897	136	159	165	227	196	258	220	270	258	230	119	132	2370
1898	164	142	194	174	198	234	252	242	266	171	126	153	2316
1899	185	160	163	292	292	323	316	210	216	150	164	180	2652
1900	154	146	237	234	232	311	320	261	225	146	120	142	2527
1901	134	208	158	106	212	332	266	223	218	236	134	121	2349
1902	152	170	187 203	175 261	295 347	295 183	253 300	304   249	190 289	196	120 180	142 168	2479 2715
1903	149 151	174	197	211	281	249	277	262	229	184	141	107	2452
1905	150	188	224	261	298	268	319	271	191	224	179	127	2700
1906	144	192	223	254	307	293	289	292	271	173	130	81	2649
1907	91	141	192	204	211	284	336	312	159	199	103	129	2363
1908	171	186	196	254	267	366	314	255	243	206	166	138	2760
1909	102	155	223	237	283	361	374	314	213	225	119	157	2763
1910	123	171	259	236	233	259	338 228	282 281	208	210	101	127	2547 2764
1911	110 136	202	238 233	300 234	329 281	396 390	339	301	241	175 226	171	135	2902
1912	141	203	193	236	272	353	335	287	224	90	150	140	2623
1913	106	192	166	217	252	279	254	201	274	209	148	122	2419
1915	134	166	292	220	299	291	275	256	275	200	160	138	2705
1916	149	144	228	206	274	278	260	306	275	232	160	167	2678
1917	118	171	224	204	214	257	306	307	267	186	193	112	2558
1918	165	170	248	250	311	304	271	264	207	165	143	110	2608
1919	134 147	213 143	173 237	185 183	276 252	330 238	301 343	260 246	193 226	134 228	125 88	126 152	2451 2484
1920	163	159	210	174	288	332	274	339	269	224	94	132	2659
1922	172	114	178	248	332	251	294	224	252	214	139	96	2514
1923	116	160	193	241	291	281	255	286	222	200	145	118	2512
1924	162	199	234	224	225	289	347	275	222	251	171	122	2723
1925	141	156	210	261	274	311	301	294	209	145	160	134	2596
1926	106	126	211	236	283	270	268	200	215	196	160	130	2401
1927	133	118	255 247	343 279	218 262	306 249	241 298	233	266 193	253 230	132 105	152 171	2651 2669
1928	191 171	162	211	182	326	346	367	296	205	193	136	118	2712
1930	113	181	236	293	271	306	274	294	275	195	155	130	2724
1931	208	170	193	275	284	268	244	240	243	223	149	125	2622
1932	96	137	222	257	338	291	343	339	268	174	165	150	2780
1933	175	207	195	197	282	289	291	239	200	218	149	95	2537
1934	118	183	237	278	311	287	286	241	120	187	130	140	2518
1935	142	132	225 204	162 192	254 320	207 289	248 369	267 254	163 212	251 198	90	126 115	2265 2643
1936	175	167 163	236	208	244	259	309	257	259	162	148	150	2492
1937	121	114	176	233	279	302	242	326	213	178	160	126	2470
1939	119	135	180	177	276	295	325	260	230	150	170	108	2425
1940	174	153	214	197	221	275	293	305	224	213	96	93	2459
Aver'.	143	166	213	227	271	287	293	270	228	196	141	133	2568
Posble	295	1297	371	401	452	455	461	429	374	343	295	284	4457
		1					1	}	}			1	

<sup>†</sup> Leap years not considered.

## EXTREMES OF BAROMETRIC PRESSURE, 1872-1940

Sea Level Pressure

			P.	RESSUR	Е		
MONTH	Aver- age	Maxi- mum	Year	Day	Mini- mum	Year	Day
January February March April May June July August September October November December	30.01 30.08 30.06	31. 00 31. 03 30. 96 30. 72 30. 63 30. 57 30. 51 30. 48 30. 65 30. 75 30. 87 30. 96	1920 1920 1904 1911 1936 1884 1892 1934 1888 1879 1932 1887	31 1 5 12 22 15 7 31 7 31 28	28. 67 28. 69 28. 45 28. 86 29. 11 29. 26 29. 21 29. 26 29. 09 28. 97 28. 73 28. 80	1913 1895 1932 1907 1929 1923 1932 1932 1934 1938 1925 1873 1915	3 8 7 9 3 27 2 26 21 25 18 14
Average or Extremes		31.03	1920	Feb. 1	28, 45	1932	Mar. 7

## Maximum Amounts of Precipitation

16	5 mi	n's	10 m	in's	15 m	in's	30 m	in's	ı ho	ur	2 ho	urs	24 ho	urs
Month	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.
Jan. Febr. Mar. April May June July Aug. Sept. Oct. Nov. Dec. High- est	.15 .10 .15 .13 .55 .42 .50 .55 .25 .25 .34 .21	1936 *1926 1913 1936 1932 1925 1927 1908 1902 1928 1937	. 14 . 23 . 19 . 62 . 72 . 67 . 91 . 43 . 54 * . 31	1936 *1918 1913 1921 1932 1905 1916 1908 1927 1928 1932 1937	. 20 . 26 . 24 . 63 . 75 . 85 1. 12 . 62 . 67 . 39 . 26	1936 1920 1913 1920 1932 1905 1916 1908 *1927 1928 1927 1937	. 33 . 39 . 31 . 65 . 90 1. 33 1. 45 1. 01 . 86 * . 62 . 45	1936 1920 1913 1920 1932 1925 1916 1908 1911 1906 1932 1937	. 49 .54 .50 .69 1.07 1.62 1.80 1.10 1.58 .83 .81	1919 1920 *1932 1931 1926 1922 1921 1901 1904 1906 1932 1937	. 71 1. 03 . 78 . 94 1. 28 2. 45 2. 27 1. 74 1. 74 . 94 1. 47	1919 1920 1932 *1931 1926 1922 1915 1917 1904 1906 1927 1937	4. 45 3. 04 3. 19 3. 31 5. 35 6. 04 4. 99 5. 63 4. 92 5. 43 3. 36	1881 1886 1877 1921 1920 1875 1921 1879 1933 1895 1876

<sup>\*\* 1871</sup> to 1937, other data 1901 to 1937. 

\* Several occurrences.

## MONTHLY AND ANNUAL PRECIPITATION.

											II			
Year.	Jan.	Feb.	Mar.	Apr.	May.	Јипе	July	Aug.	Sept.	Oct.	Nov.	Dec.	An'1.	
1818	2,64	1 2 40	4.05	6.15	5.96	2 45	4.08	0.46	7.81	2,11	1.91	0.86	42.99	
1819	0.70	3.49	6.21	3.74	3.06	3.47 3.56	2,02	4.38	5.29	1.40	1.91	1.63	35.48	
1820	3.12	4.25	4.90	0.45	5.08	3.42	4.19	5.15	2.43	5.39	3.00	2.80	44.18	
1821	1.41	4.42	2.53	4.90	4.84	2.79	2.35	1.58	4.73	2.29	3.12	1.93	36.89 27.20	
1822	1.29	2.34	2.02	2.99	0.78	3.54	4.32	1.20	2.15	2.53	2.58	1.46		
1823	3.00	4.57	7.72	2.21	6.40	0.93	5.74	1.98	1.95	3.95	1.92	6.93	47.30	
1825	3.95	5·99 3·43	4.70	4.72	1.43	4.77	I. 24	5.62	2.66	3.21	0.81	2.80	36.02 35.34	
1826	2.55	1.48	3.81	1.50	0.25	3.85	2.90	12.10	3.03	3.80	2.31	3.56	41.14	
1827	3.92	2.97	2.51	4.75	5.34	2.56	2.59	4.88	4.81	5.28	5.71		48.91	
1828	2.15	2.79	1.84	2.00	4.67	1.59	4.58	0.37	3.82	2.79	5.55	3.59 0.26	.32.41	
1829	4.93	5.62	4.30	3.45	2.71	1.64	6.98	4.95	2.62	1.65	5.74	2, 26	46.85	
1830	2.36	1.63	3.51	1.21	3.93	3.46	4.90	2.64	5.65	2.38	5.32	5.96	42.95	
1831	4.44	3.68	3.07	6.97	3.65	4.32	5.53	5.57	3.83	2.46	3.20	2.93	51.61	
1833	2.96	3.74	2.71	2.30	1.03	3.23	2.01	0.82	2.88	6.00	3·57 5·53	5.86	37.86	
1834	1.39	1.13	0.96	2.93	6.33	3.09	7.71	2.47	3.71	4.62	2.00	2.36	39.60	
1835	3.25 8.84	1.37	4.27	4.54	2.07	2.74	9.07	2.89	1.31	1.87	2.08	2.40	37.86	
1836		3.57	2.90	1.58	1.85	4.33	2.12	1.53	0.54	4.04	5.43	4.13	40.86	
1837	4.10	4.14	3.02	3.07	5.79	2.98	1.80	1.67	0.56	1.58	2.35	2.46	33.52	
1838	3.07	2.77	3.09	2.62	3.32	2.55	1.20	4.26	9.87	5.02	3.95	0.80	42.52	
1839	0.98	3.11	4.55	7.73	2.23	2.78	3.32	5.70	2.12	2.50	11.63	6.35	41.10	
1841	6.00	1.60	3.50	8.82	1.90	1.95	2.10	4.20	2.86	3.80	4.55	5.77	47.05	
1842	0.80	3.20	3.35	3.50	2.90	5.30	1.82	4.44	3.25	0.80	4.45	5.30	39.11	
1843	2.20	6.08	6.17	3.50 3.88 <b>0.20</b>	1.60	4 61	2.15	6.88	0.98	4.82	3.40	3.92	46.69	
1844	3.68	2.42	6.00	0.20	2.72	1.40	2.17	2.62	3.53	5.80	3.15	3.85	37.54	
1845	4.58	4.25	3.83	1.23	2.82	2.05	3.28	1.82	2.23	4.00	10.25	5.98	46.32	
1846	3.12	2.95	2.73	1.23	2.03	2.25	2.51	6.45	6.64	1.35	4.17 5.12	4·5 <sup>2</sup> 3·95	29.95	
1848		3.90	4.05	1.40	6.30	1.73	1.35	3.10	3.55	5.10	2.25	5.95	40.98	
1849	2.30 0.35	1.15	7.35	0.90	3.10	1.45	0.85	6.25	1.25	8. 10	5.50	4.05	40.30	
1850	4.59	2.52	5.32 3.88	4.82	6.63	2.77	2.70	5.30	7.15	2,10	3.32	6.76	53.98	
1851	1.30	4.20	3.88	9.37	3.31	1.80	3.09	1.27	3.50	4.43	5.51	2.65	44.31	
1852	4.85	2.85	4.45	10.18	1.95	2.35	3.28	7.63	1.65	2.19	3.47	3.09	47.94 48.86	
18 <b>53</b> 18 <b>54</b>	2.44 2.9I	5·30 4.87	2 27	3.78 6.63	5.63	0.30	3.64	9 40	3.86	3.92	4.43 6.80	3.95 4.64	45.71	
1855	7.22	4.67	1.18	4.28	I.20	3.09	4.15	1.46	1.13	4.61	5.27	5.93	44.19	
1856	5.32	0.80	1.33	4-37 10.83	7.10	2.90	4.02	II.II	4.90	2.70	3.33	4.28	52. 16	
1857	5.36	2.45	3.09	10.83	5.57	2.02	5.53	7.18	2.56	4.50	2.52	5.26	56.87	
1858	3.28	2.30	2.18	5.18	3.89	8.09	4.56	7.03	5.02	3.03	3.38	4.73	52.67	
1859 18 <b>6</b> 0	5.93 1.89	4.05 3.85	7.64	3.36	3.63	7.89 8.01	5.90	4.72	7.35	3.28 2.66	3.75	6.47 5.86	56.70	
1861	6.04	3.57	7.48	5.89	2.97	3.64	2.76	6.04	1.77	2.66	5.37	2.35	50.06	
1862	8.30	3.29	4.70	1.97	2.70	6.78		4.20	5.61	4.85	8.32	3.01	61.06	
1863	4.51	4.54	6.42	9.08	2.82	2.56	7·33 12·38	5.64	3.12	3.83	6.48	6.34	67.72	
1864	3.87	1.43	11.75	4.72	3.31	1.47	1.90	4.17	2.60	4.80	4.00	5.28	49.30	
1865	4.47	5.08	4.83	2.57	6.90	2.83	4.26	1.42	0.62	6.21	4.46	4.18	47.83	
1866	3.73 6.06	5.28 6.55	6.12	2.03	5.04	3.4I 2.74	5.42	3.87	5.90	6.76	3.74	4.86	50.70	
1868	6.09	1.88		6.94	10.38	3.79	1.10	7.53	11.95	1.78	5.31		64.11	
1869	4.03	9.98	5.04 8.74	2.05	6.88	4.44	3.30	2.19	5.18	6.71	3.74	9.04	66.28	
1870	8.16	7.03	4.88	8.42	2.58	7.59	4.01	1.57	0.67	6.80	4.40	3.62	59.73	
1871	0.92	2.63	4.55	3.79	4.34	5 - 55	3.22	3.08	1.30	5.88	6.42	3.38	45.06	
1872	2.11	2.31	4.05	1.31	3.29	4.84	4.00	10.68	6.04	4.85	3.66	3.09	50.23	
1873	5.76	3.21	3.76	3.83	5.16	0.54	3.84	6.21	2.91	5.33	8.34	5.64	54.53	

## MONTHLY AND ANNUAL PRECIPITATION-Continued.

		LONI		AND			FREC	11 111			LUIII		
Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept	Oct.	Nov.	Dec.	An'l.
1874 -	4.32	3.41	1.60	7.97	3.71	3.94	3.47	6.67	2.05	1.39	2.85	2.14	43.52
1875	3.68	3.74	5.04	4.92	3.76	7.25	3.93	3.50	3.12	4.99	5.47	0.75	50.15
1876	1.87	4.54	7.19	3.61	2.70	1.72	5.86	1.23	3.84	1.66	11.03	3.71	48.96
1877	3.33	0.45	9.79	4.19	3.38	3.21	2.27	4.49	0.60	8.84 6.76	9.62	I.32	51.49
1878	7.60	4.40	5.91 3.90	6.14	0.97	2.28 6.24	4.58	7.66 6.71	3.47	0.91	2.97	4.22	65.53
1879··	3.72	4.11	3.25	2.85	1.63	0.75	6.86	2.90	2.36	3.15	2.30	3.42	37.30
1881	7.21	4.89	9.86	1.66	4.16	7.79	2.96	1.23	2.50	2.84	3.73	3.80	52.63
1882	3.68	4.77	3.35	2.50	6.05	1.03	3.91	1.46	10.93	2.29	1.20	2.65	43.82
1883	3·59 6·27	2.74	2.33 4.80	4.76	5.11 3.31	4.01	2.73 4.25	0.39 5.01	0.3I	6.40 3.17	2.08	3.71 4.46	35.48
1884	5.33	5.74 3.00	1.15	3.30	4.26	3.70	1.44	7.64	1.70	5.71	5.78	2,09	45.10
1886	7.08	7.04	3.20	1.70	3.08	1.34	1.81	3.64	2.73	3.27	3.59	3.66	42.14
1887	4.86	3.69	3.56	2.62	1.67	1.98	3.59	3.05	0.97	2.53	2.22	2.71	33.75
1885	2.26	2.36	3.32	2.04	5.20	2.69	1.79 5.80	6.53	6.77 3.19	3.58	4.97	4.38	45.89
1890	2.00	2.29	5.85	3.07	4.15	2.77 2.2I	1.93	3.95	5.04	3.3 <sup>1</sup> 5.63	4.9I 0.97	3.72	39.82 39.14
1891	4.39	3.66	3.94	1.71	1.56	3.06	3.73	3.87	2.29	5.56	2.35	3.58	39.70
1892	4.62	2.15	3.91	0.93	5.15	3.05	2.56	4.87	1.90	2.31	4.45	1.12	37.02
1893	2.56	6.22	2.80	3.13	5.23	2.20	1.72	6.46	1.59	2.94	1.83	5.16	41.84
1891	3.01	3.15	2.72	3.78	4.12 2.71	0.80	3.09 2.98	3.03	1.53	5.11	3.10	4.28	36.62
1895	3.79	3.94	5.41	1.56	1.68	2.71	2.90	2.15	6.40	3.15	3.70	1.70	37.55
1897	3.16	2.12	2.79	3.17	4.00	4.46	4.22	3.95	2.38	0.41	6.19	3.92	40.77
1898		4.81	1.82	6.39	4-33	1.60	4.42	6.38	1.93	7-17	5.32	2.19	49.86
1899	4.19	3.03 6.83	5.95	1.29	5.07	2.86	2.52	2.52	5.09 4.62	2.40	2.5I 4.17	1.52	34.69
1900	4.20	0.66	6.58	7.43	6.31	1.85	5.20	3.25	2.50	3.41	2.41	8.49	48.72
1902	1.65	4.19	5.29	2.87	1.07	1.77	2.88	2.20	2.08	4.36	1.09	4.48	33.93
1903	3.43	3.90	5.95	4.43	0.32	7.19	2.99	3.33	2.43	3.95	1.48	2.57	41.97
1904	1.80	2.49	2.43	9.14	3.38	2.06	1.23	2.19	5.57	0.82	1.70	2.52	39.64
1905	2.96	2.66	2.25	2.14	4.91	2.57	1.00 5.38	3·39 1.58	5.10	3.88	2.55	3.23	32 <b>.</b> 08
1907	2.54	1.88	1.66	3.31	3.12	2.56	1.09	1.10	7 · 43	2.54	6.02	4.31	37.56
1908.	2.47	2.96	2.97	1.70	3.78	1.08	3.17	4.35	0.68	3.70	0.74	2.47	30.07
1909	3.94	4.71	3.28	3.92	1.02	4.45	0.97	3.55 0.98	5.15	1.07	4.11	3.19	40.67
1910	4.25	3.44	2.95	2.28	0.35	3.67	4.65	4.17	2.95	2.27	3.75	3.07	35.78
1912	2.87	2.38	4.18	3.07	4.04	3.67 0.27	5.16	1.94	1.07	1.00	2.61	5.36	34.55
1913	2.38	2.99	4.81	4.77 5.87	3.22	0.64	2.69	2.86	2.51 0.21	6.04	2.15	3.05	38.11
1914	3.25	3.07	4.16 T.	5.87	2.78	1.40	2.6 <sub>4</sub> 8.8 <sub>5</sub>	3.20 5.63	0.69	2.82	2.72	3.46	34.31
1915	6.33	3.47 5.18	3.20	4.51	2.83	1.39 5.04	5.67	2.19	1.90	0.94	1.67	3.00	37.36
1917	2.82	2.67	3.73	2.72	4.45	4.05	1.10	7.06	1,91	5.33	0.59	2.56	38.99
1918	3.11	2.30	3.19	3.08	1.99	1.94	2.64	1.56	9.19	0.99	1.20	3.21	34.40
1919	3.62	2.66	4.11	2.33 5.68	4.25 5.26	1.08 5.78	4.63	5.07	5.83	2.13	5.36	3.89	42.70
1920	2.72	2.64	3.72	4.62	3.64	3.58	11.69	1.63	1.22	1.24	5.46	2.35	42.96
1922	1.41	2.64	4.35	2.48	5.34	3.58 8.05	2.63	4.75 1.86	3.66	1.97	0.84	3.01	41.13
1923	6.07	1.18	2.19	5.26	0.83	2.03	3.36		0.38	3.37	2.78	4.98	34.89
1924	3.27	2.61	5.21	3.79	2.81	1.07	2.04	6.86	6.96	0.06	1.93	1.48	34.92
1925	3.97	1.55	2.91	1.73	2.07 3.31	4.59 1.33	3·54 6·c6	3.91	3.45	4.03 3.58	4.07	5.20 3.96	41.15
1927	2.67	3.28	1.19	1.36	2.50	2.43	4.77	6.73	2.43			5. 23	41.07
1928	1.66	2.66	1.56	4.68	3.08	5.56	4.14	2.45	4.47	3.77 2.88	4.71 1.85	2,61	37.60
1929	3.82	3.78	2.80	7.52	2.82	2.30	1.35	2,22	0.76	2.38	3.01	4.43	37 - 19
1930	2.77	2.23	3.02 4.66	2.08	3.39 4.51	9.13	2.43	3.03	1.67	5.83	0.82	2.99	35.29
1932	4.24	1.74	5.28	1.67	1.63	2.05	2.10	4.24	4 50	7. 18	5.24	1.78	41.65
1933	2.04	3.77	6.80	7.37	2.74	1.22	2.63	3.41	10.94	3.11	0.65	2.93	47.61
1934	2.67	4.45	4.04	3.21	1.56	3.11	1.25	1.83	5.67	2 94	1.78	1.64	34.15
1935	6.13	3.26	6.40	4.77 3.54	1.35	5.07	I.10 I.04	5.15	3.79	0 34	3.91	8.19	32.94 46.30
1937	3.93	1.31	3.57	5.34	2.52	3.47	1.17	4.97	3.69	3.95	4.66	5.09	43.67
1938	4.91	2.38	2.42	3.22	4.42	6.30	9.46 <b>0.75</b>	3.31	6.00	2.43	2.89	2.80	50.54
1939	2.18	3.79	5.23	4.54	1.29	2.70		2.14	1.01	4.77	1.14	2.91	32.45
1940 M'ns			3.83	4.58	3.28	1.80	3.17	0.85	2.32		6.24	2.76	36.05
M'ns	*3.56 †3.64	3.31 3.44	3.79	3.60	3.13	3.13	3.36	3.67	3.21	3.31 3.45	3.59	3.34	43.18
									1				
	None		d food	1	1	1		!	<u> </u>	]		1	

Note.—Bold-faced figures indicate greatest and least monthly and annual amounts. \* Computed from the Weather Bureau records of 70 yrs. † Averages 123 yrs. From 1818 to 1822, Dr. Enoch Hale; from 1823 to 1865, Jonathan P. Hall; from 1866 to 1870, Superintendent of Sewers.

## KILLING FROSTS

	Latest date in spring	Earliest date in autumn	Year	Latest date in spring	Earliest date in autumn
1893	Mar. 30 May 3 April 22 April 19 Mar. 26 April 19 Mar. 26 April 19 Mar. 26 April 19 April 19 April 19 April 22 April 10 April 26 April 26 April 27 April 19 April 25 April 19 April 25 April 26 April 25 April 30 April 30 April 30 April 30 April 30 April 40 April 27 April 40 April 27 April 6 April 6 April 6 April 6 April 6 April 6 April 19 April 19 April 19 April 19 April 19 April 21 April 21 April 21 April 21 April 21 April 30 April 31		1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1931 1935 1937 1938 1938	April 10 April 14 April 14 April 19 April 11 April 12 April 12 April 11 April 18 April 11 April 19 April 19 April 10 April 19 April 21 April 20 April 21 April 21 April 20 April 21 April 20 April 20 April 21 April 17 April 17 April 18 April 21 April 23 April 24 April 25 April 16 April 24 April 28 April 17 April 28 April 18 April 28 April 18 April 19	

Average date last killing frost in spring, April 16. Latest date, May 16, 1882 and 1936, Average date first killing frost in autumn, October 24. Earliest, September 26, 1879.

## Prevailing Wind Movement

Wind	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
North   per cent of time.   hourly velocity	11 10	9	8	9 10	7 9	6 9	5 <b>8</b>	7 8	9	9	11 10	10 11	
Northeast { per cent of time. } hourly velocity	4 11	6 10	7 10	11 9	1! 8	9 <b>8</b>	6 6	6	7	8	6 <b>8</b>	4 9	
East { per cent of time. } hourly velocity	4 11	6 9	10 9	14 10	17 8	16 8	13 6	15 7	12 7	8	5 10	4 9	
Southeast. { per cent of time. hourly velocity	8	4 8	6 <b>8</b>	5 8	6 <b>8</b>	5 7	5 6	7 6	6 7	5	4 10	4 8	
South { per cent of time. hourly velocity	6 <b>9</b>	7 8	8 11	11	10 10	9 <b>9</b>	9 <b>9</b>	9	9 <b>10</b>	9	7 10	6 10	
Southwest { per cent of time. hourly velocity.	20 11	15 10	17 10	16 11	20 9	25 <b>10</b>	30 9	24	23 <b>9</b>	20 <b>10</b>	21 10	20 10	
West { per cent of time. hourly velocity	29 12	29 12	23 12	20 12	17 10	20 <b>10</b>	21 8	19 9	18 9	22 10	25 11	30 12	
Northwest { per cent of time. hourly velocity	22 12	24 12	21 12	18 11	12 10	10 8	11 8	13 8	16 9	19 <b>10</b>	21 <b>10</b>	22 11	
Prevailing direction	w.	w.	w.	w.	sw.	sw.	sw.	sw.	sw.	w.	w.	w.	w.
Average hourly velocity	11	12	12	11	10	10	9	9	9	10	11	11	10

Based on 24 years records: anemometer elevation 188 feet above ground.

Daily Maximum Temperature, 1940

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	25 25 34 30 30 30 25 28 34 38 35 37 52 28 22 22 29 32 2 28 28 28 28 28 31 35 31 35 20 6 6	37 30 29 34 37 39 34 43 43 43 44 47 37 37 37 32 35 34 42 36 28 36 37 37 36 36 36 37 36 36 36 36 37 37 38 37 38 38 38 38 38 38 38 38 38 38 38 38 38	33 34 43 35 38 443 440 440 45 35 31 31 41 42 44 42 44 45 36 40 37 39 46 41 36 60 60 60 60 60 60 60 60 60 60 60 60 60	52 47 43 40 50 53 54 46 59 55 52 47 42 44 40 63 39 39 39 48 47 55 56 62 57 57 57 57 57 57 57 57 57 57 57 57 57	73 61 71 58 59 73 75 71 59 67 68 61 75 67 68 61 75 57 57 64 75 57 67 67 67 67 67 67 67 67 67 67 67 67 67	73 88 88 74 85 82 85 86 86 86 86 86 86 86 86 86 86 86 86 86	70 76 74 73 75 90 91 88 76 62 71 75 83 76 76 84 84 87 77 88 80 80 80 80 82 90 90 82 90 83 90 84 90 85 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 86 90 90 90 90 90 90 90 90 90 90 90 90 90	78 70 81 84 85 85 85 85 86 87 77 80 88 86 87 86 88 86 89 76 69 69 69 71 88 87 88 88 88 88 88 88 88 88 88 88 88	81 79 82 77 73 67 60 73 65 65 71 69 66 64 81 75 76 68 69 69 60 60 60 60 60 60 60 60 60 60	555 63 62 65 65 65 67 67 64 67 67 64 67 67 67 67 67 67 67 67 67 67 67 67 67	50 55 57 64 71 58 46 49 51 55 55 65 48 49 48 44 42 46 49 48 49 48 40 55 58 55 68 88 56 88 86 86 86 86 86 86 86 86 86 86 86 86	48 32 31 32 35 27 51 49 40 42 32 44 45 40 44 41 41 41 41 41 41 41
Mean	29.6	36. 0	39.5	50.6	63.7	73.5	79.9	76.6	71.3	58.7	49.5	41.9

Maximum temperature for year 95°, July.

Daily Minimum Temperature, 1940

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	14 16 18 19 16 18 19 17 17 17 29 10 10 10 8 8 13 15 10 10 18 18 18 19 10 10 10 10 10 10 10 10 10 10 10 10 10	20 20 20 16 17 23 33 31 28 27 32 28 27 20 21 25 33 32 22 20 21 12 12 12 12 12 12 22 22 22 22 22 22	24 15 29 32 32 32 34 34 34 29 28 20 17 14 17 28 30 27 27 27 27 27 27 27 28 32 32 32 34 44 44 16 16 16 16 16 16 16 16 16 16 16 16 16	38 34 33 35 36 36 36 36 36 36 36 36 36 36 37 40 36 37 40 36 37 40 38 38 38 38 40 40 36 40 40 40 40 40 40 40 40 40 40 40 40 40	50 55 45 47 47 52 47 50 47 45 44 48 48 48 48 48 47 46 46 46 47 47 50 47 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	56 57 62 58 63 66 58 57 54 50 59 60 66 59 57 60 59 50 50 50 50 50 50 50 50 50 50 50 50 50	56 55 56 56 57 61 67 68 62 57 68 68 68 68 68 68 66 67 69 70 67 69 61 67 68 68 68 68 68 68 68 68 68 68 68 68 68	63 58 57 66 68 67 66 63 64 62 62 62 62 62 62 62 62 62 65 54 55 54 55 56 56 56 56 66 67 66 66 67 66 67 66 67 67 68 68 68 68 68 68 68 68 68 68 68 68 68	65 65 66 66 66 62 59 50 50 57 61 54 52 53 53 54 55 55 56 60 60 60 67 66 66 60 44 42 42 48 48 48 55 55 55 55 55 55 55 55 55 55 55 55 55	45 51 52 46 43 52 58 56 50 44 43 52 57 57 51 42 43 35 37 47 42 40 41 32 40 41 41 42 44 41	35 43 45 42 50 38 42 38 36 34 44 44 43 41 43 32 39 38 46 40 40 22 21 21 17 36 36 36 36 38 40 40 40 40 40 40 40 40 40 40 40 40 40	26 16 6 2 24 15 24 36 25 31 31 24 20 22 29 20 25 32 39 36 21 34 31 39 39 40 35 26.7
ALCOHEL	10.4	20, 2	20.7	00.0	40.0	00.1	00, 2	00.5	00.0	72. 4	50.5	20.7

Minimum temperature for year 2°, December.

Daily Precipitation, 1940

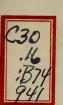
Day	January	February	March	April	May	June	July	August	September	October	November	December
10	* T. * .21 * .01 * .34 * .97 * .07 * T. * .01 * .02		T. 1.21 .54 .06 .06 .06 .06 .06 .06 .06 .06 .06 .06		T10 .10 .10 .10 .10 .10 .10 .10 .10 .1	.01 T. T01 .04 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01	.02 .02 1.48 T. 	.16		.08 .08 .06 .01 .01 .08 .06 .01	.65 .94 .85 .01 * T. 	* . 07 * T 08 * . 02 * . 02 * T 01 . 66 . 24 . 28
Total	1. 68	4.78	3.83	4.58	3. 28	1.80	3. 17	0.85	2. 32	0.76	6.24	2.76

T. indicates a trace. \*Wholly or partly snow.

Daily Cloudiness, 1940 [Daylight hours; scale 0 to 10]

			[ Da	yngnt	nours	s; scar	e 0 to	10 ]				
Day	January	February	March	April	May	June	July	August	September	October	November	December
1	3 0 5 0 9 3 3 0 10 1 9 5 10 10 10 9 2 2 2 8 6 6 10 3 7 1 10 8 2 1 1 2 2 0 5 5 0	6 10 7 3 6 8 10 3 5 10 7 4 6 10 0 8 10 10 0 6 10 0 0	7 2 2 8 10 10 10 9 10 6 1 5 5 0 0 0 7 7 10 6 5 5 3 10 2 2 9 4 4 9 9 10 7 7	4 4 4 3 10 7 7 3 2 10 10 11 5 10 9 4 3 3 10 6 10 10 10 10 10 9 7 7 4 4 8 1 4 8 6.7	6 10 8 9 9 7 7 3 4 4 6 6 1 1 7 8 8 3 6 6 2 9 9 9 9 4 4 4 6 6 10 10 10 10 10 10 10 10 10 10 10 10 10	7 5 1 4 8 8 4 4 3 10 10 10 10 10 10 8 0 10 10 10 6 4 4 7 1 4 4 3 1 1 8 10 9 5 5 7 3 5.8	8 3 4 10 6 1 10 3 3 5 2 2 8 10 7 7 1 2 6 6 7 7 7 8 8 5 4 4 6 7 7 8 8 5 5 5 5 5 5	731113381112255933156679971128823664883887	7 8 1 3 4 4 4 4 9 9 2 10 10 10 10 5 5 4 0 7 7 10 9 2 2 7 7 3 8 8 0 0 1 7 7 10 1 0 0 8 8	10 8 7 4 11 6 2 10 7 7 0 2 4 4 4 0 7 7 3 9 9 6 6 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 10 6 1 10 9 9 6 1 1 10 10 10 10 10 10 10 10 10 10 10 10	9 4 1 5 10 3 8 9 4 4 10 9 4 10 10 10 10 10 10 10 10 10 10 10 10 10
Mean	4.9	6.2	5. 5	6.7	7.0	5.8	5.5	4.5	5.0	4.5	6.9	6.8

Note.—Clear (0 to 3). Partly cloudy (4 to 7). Cloudy (8 to 10).



Kirstein Business Library

U S DEPARTMENT OF COMMERCE
WEATHER BUREAU

## ANNUAL METEOROLOGICAL SUMMARY

WITH COMPARATIVE DATA

1941

BOSTON, MASS.

COMPILED BY
G. H. NOYES

BOSTON, MASS.

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2			BOST	ON,	MA	SSA	CH	US	ETI	S						
		n.	0° or below.	0	0	0	0	0	0	0	0	0	0	0	0	0
		Min. temp.	320 or below.	30	27	23	-	0	0	0	0	0		9	21	109
		x. pp.	900 or above.	0	0	0	0	2	-	က	_	2	0	0	0	15
		Max. temp.	320 or below.	17	00	က	0	0	0	0	0	0	0	0	9	37
	ays.		Dense fog.	2	0	0	2	1	4	2	0	-	0	0	හ	15
	of d		Thunderstorms.	0	0	0	0	4	9	4	_	0	0	0	0	15
	ber	more	Snow ( .01 in. or ( .61 in. or )	œ	2	œ	0	0	0	0	0	0	0	0	-	19
	Number of days.	•(;	With precipitati	6	9	13	∞	13	12	14	1~	со .	12	œ	6	114
			Cloudy.	16	10	13	1:3	14	6	13	6	5	16	∞	13	138
			Partly cloudy.	- oc	∞	00	00	6	12	15	12	13	9	13	ဘ	120
			Clear.	7	10	10	10	∞	6	က	10	12	6	6	10	107
			Sales (32 miles) hour or over)	8	2	9	2	0	က	0	0	0	က	0	₹	23
		st.	Date.	17	1	∞	9	25	5	7	19	53	23	21	24	Feb.
è		Highest	Direction.	ne.	e.	ne.	ne.	nw.	ne.	SW.	SW.	nw.	nw.	W.	S.	3
MASS	Wind.	1	Velocity.	36	43	40	37	29	38	56	56	29	38	78	36	43
BUSION,		.noite	Prevailing direc	nw.	nw.	пw	nw.	w.	SW.	sw.	мu	SW.	nw.	*	nw.	nw.
		-9A	Average hourly, locity.	13.2	13.8	14.3	12.3	10.4	10.8	9.6	10.0	10.8	11.4	11.1	15.1	11.6
141,	- 9	ble.	Percent of possi	43	22	28	64	58	57	53	69	17	09	74	44	99
2	Sun- shine	.s	Yumber of hour	127	170	217	257	262	259	2.43	294	290	205	217	125	2666
YEAR 1941,			Snowfall.	20.4	1.9	12.5	0	Ţ.	0	0	0	0	T.	7.	0.3	35.0 2666
FUE	ation.		Date.	24-25	2-12	6 -8	23-24	10	4- 5	28-29	19	31- 1	3- 4	1-2	13-14	Dec. 13-14
	Precipitation.	·s.in	Offertest in 24 ho	1.86	1,30	1.77	0.72	0.71	1.35	1.38	0.66	1.24	0.47	1.35	2. 12	2. 12
SUMMARX	Pr		Total.	4.21	1.70	3.40	1.70	2.43	4.29	2.90	1.55	1.18	1.92	2.40	3, 19	30.87
SO	ve	÷÷	7:30 p. m.	67	62	57	69	58	29	22	62	61	62	09	67	63
	Relative	numanty per cent)	1:20 p. m.	61	53	52	48	48	54	09	49	46	51	20	61	ાટ
	, w	(be	7:30 a. m.	11	89	63	61	63	89	92	89	69	7.5	73	72	69
			Date.	30	10	18	7	က	9	15	29	30	56	13	21	Jan. 30
		nes.	Lowest.	8	20	12	32	36	90	57	53	40	53	56	7	က
	Temperature.	Extremes.	Date.	23	∞	23	20	2.5	27	2	6	16	4	19	4	June 27
	pera		Highest.	48	47	99	68	92	96	96	94	94	84	75	69	96
1	Tem		Monthly.	25.2	29.4	33.4	51.6	59.8	68.2	71.4	9.02	0.99	55.9	48.0	35.2	51.2
		Mean.	.mnminiM	18.9	22.3	26.2	42.4	50.5	59.1	63.8	61.3	55.8	47.1	39.3	27.8	42.9
		2	.mnmixsh	31.6	36.4	40.5	60.7	69.2	77.2	1.62	79.9	76.2	64.7	26.7	42.6	59. 6
			Month.	January	February .	March	April	May	June	July	August	September	October	November	December.	Year

Elevation of instruments above ground , thermometers, 33 feet; raingage, 3 feet, anemometer 62 feet.

( 30.

# COMPARATIVE DATA AND EXTREMES

	B051011, 1	
	Minimum temp.	20 11800000081 8
	Minimum temp.	22 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
yys	Max. temp. 90° or above	000000000000000000000000000000000000000
Average number of days	Dense fog	88 1111111122111 4
ıbe <b>r</b>	Thunderstorms	8
nnu	Snow (trace or (910m	11 11 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15
rage	Hain, .01 or more	60 11 12 10 10 10 10 10 10 10 10 10 10 10 10 10
Ave	Cloudy	63 110 110 110 110 110 110 110 110 110 11
	Partly cloudy	63 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
	Clear	63 10 10 10 10 10 10 11 11 11 11 11 11 11
	Year	60 1940 1940 1941 1941 1941 1941 1941 194
nd	Direction highest velocity	60 ne.
‡ Wind	Highest velocity	60 60 60 60 60 60 60 60 60 60 60 60 60 6
	Prevailing direc-	60 W. W. SW. SW. SW. W. W
	Average hourly velocity	60 111.7.5 111.7.5 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10
hine	Ретсепт	63 64 64 65 64 64 64 64 65 64 64 65 64 65 65 65 65 65 65 65 65 65 65 65 65 65
Sunshine	Total hours	48 143 166 2213 227 227 293 2287 293 293 196 1141 1133
ve ity int	.m.q 8	40 66 66 68 68 68 68 71 72 72 73 74 74 75 75 76 76 76 76 76 76 76 76 76 76 76 76 76
Relative humidity per cent	Noon-local time	14 14 661 661 661 661 661 662 663 663 664 665 665 665 665 665 665 665 665 665
	.m. 8	40 77 77 77 77 74 74 75 75 75 75 75 75 75 75 75 75 75 75 75
	Year	69 1897 1921 1892 1917 1917 1884 1909 1909
u	Greatest snowfall stuod 24 nours	69 14.7 16.0 12.0 12.0 0 0 0 0 0 0 0 12.0 12.0 12.
tatio	Ilalwonz egatevA	69 11. 5 12.8 5 17. 17. 17. 17. 17. 17. 17. 17. 17. 17.
Precipitation	Year	65 1881 1886 1877 1921 1920 1875 1921 1879 1879 1876 1876 1933
P4	Greatest in 24 sund	6. 6. 4. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.
	IsmroN	50 60 60 60 60 60 60 60 60 60 6
	Year	62 1882 1934 1872 1874 1874 1879 1940 1914 1935 1938
	Absolute lowest	62 
ture	Year	62 1876 1930 1921 1938 1880 1925 1911 1911 1911 1931 1931 1931
pera	Absolute highest	62 104 104 105 107 107 107 107 107 107 107 107 107 107
Temperature	Normal	46 27.9 28.88 35.6 66.7.1 771.7 771.7 69.9 83.2 83.2 83.2 94.0 69.9
	Tliab egateva muminim	0.022 22.00 0.00 0.00 0.00 0.00 0.00 0.
	Visse daily mumixan	59 35.8 36.6 36.6 36.7 37.2 37.2 37.2 49.6 39.6
	Month	L'gth of record years. Jan March March March March March March March June Ju

\* Has occurred on previous date. § Less than 1. ‡ Anemometer, 188 feet above ground: October 1933 to December 1935, anemometer 360 feet, record not used.

Monthly and Annual Mean Temperatures	Monthly	and Ar	anual	Mean !	Temperatures
--------------------------------------	---------	--------	-------	--------	--------------

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oet.	Nov.	Dec.	An'l.
1840 1841 1842 1843 1844 1845 1847 1848 1850 1851 1853 1853 1855 1856 1857 1866 1867 1866 1867 1866 1867 1866 1867	20.0 27.9 27.9 27.2 29.7 26.4 29.1 21.0 25.5 25.8 23.9 25.8 15.2 23.9 25.4 25.5 25.8 25.8 25.8 25.8 25.8 25.8 25.8	30.8 22.3 31.6 16.8 24.6 27.6 27.6 29.9 24.7 18.4 29.9 29.2 20.2 20.2 20.3 20.2 20.3 22.2 22.5 32.6 22.7 24.7 24.2 22.7 24.6 22.7 20.9 24.7 27.4 24.2 22.7 24.6 22.7 26.7 27.6 27.6 27.6 27.6 27.6 27	34.4 33-1 25.4 36.2 35.8 36.2 35.8 32.2 35.8 32.4 32.4 32.4 35.0 32.7 27.0 32.7 34.4 35.0 32.7 32.7 32.7 32.8 30.8 32.6 30.8 32.6 32.6 32.6 32.6 32.6 32.6 32.6 32.6	48.4 41.1 41.4 43.5 48.4 46.3 49.5 43.5 42.0 45.5 41.0 41.0 41.0 42.3 41.1 41.0 41.0 42.1 42.1 44.5 44.5 44.5 44.5 44.5 44.5 44.5 44	55.6 53.2 51.7 54.5 55.8 57.4 57.8 57.8 57.8 57.8 56.8 56.4 52.6 56.8 56.4 52.6 58.7 58.1 56.8 58.1 58.3 58.1 58.3 58.3 58.4 58.3 58.4 58.3 58.4 58.3 58.4 58.3 58.4 58.3 58.4 58.3 58.4 58.4 58.4 58.5 58.4 58.4 58.4 58.4	66.2 62.6 62.6 62.1 68.1 65.0 64.7 64.8 67.2 64.8 67.4 66.8 67.4 66.8 67.4 66.8 67.4 66.8 67.4 66.8 67.4 66.8 67.4 66.9 67.8 67.8 67.8 67.8 67.8 67.8 67.8 67.8	71.8 69.8 72.7 69.2 72.1 71.6 68.2 72.1 71.6 71.4 70.6 72.4 72.7 72.7 71.6 69.7 69.7 73.6 73.6 73.4 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.2 73.6 73.6 73.6 73.6 73.6 73.6 73.6 73.6	70.3 68.5 69.9 71.3 70.2 68.1 69.6 68.1 69.6 67.5 68.4 67.2 68.6 67.3 67.2 68.7 73.2 73.3 71.1 69.6 69.5 67.6 70.1 71.3 71.3 71.3 71.3 71.3 71.3 71.3 71	\$9.99 62.3 58.2 60.6 60.2 66.0 61.0 61.0 62.0 61.4 62.0 62.0 62.0 60.1 60.3 60.1 60.3 60.1 60.3 60.1 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3	49.5 44.6 47.9 47.5 51.2 47.7 49.8 49.2 51.2 52.9 51.1 51.3 6.5 52.5 51.1 51.3 40.8 49.2 47.8 40.5 52.9 47.8 49.2 47.8 49.2 47.8 49.2 49.2 47.8 49.2 49.2 47.8 49.2 49.2 49.2 49.2 49.2 49.2 49.2 49.2	36.6 36.4 36.3 34.8 34.3 34.3 34.3 34.3 36.2 45.0 41.2 45.0 38.7 41.3 38.3 39.6 41.2 40.0 40.2 40.0 40.2 40.0 40.2 40.0 40.2 40.0 40.0	24.7 30.0 26.9 27.4 27.0 25.6 34.4 28.9 25.6 24.0 33.5 24.4 24.6 24.6 27.6 27.4 29.6 27.4 29.6 23.1 25.6 23.1 24.4 29.6 27.4 29.6 28.4 29.6 28.4 29.6 29.6	47.4 46.4 46.4 45.2 46.0 49.0 47.7 47.7 47.4 47.3 47.3 47.3 47.3 47.4 47.3 47.4 47.3 47.0 47.4 47.4 47.4 47.4 47.4 47.4 47.4
M'ns.	24.5	25.8	33.2	44.5	55.2	66.1	71.5	68.9	61.3	49.9	39.3	27.7	47.3

These temperature records were made at the Astronomical Observatory of Harvard College, which is located on Concord Avenue and Bond Street, Cambridge, Mass., about three miles from the Weather Bureau station in Boston, Mass.

### MISCELLANEOUS DATA FOR 1941.

Barometric Pressure (reduced to sea level).—Mean, 29.96 inches, 1014.6 millibars; highest, 30.63 inches, 1037.3 millibars; December 12; lowest, 28.86 inches, 977.3 millibars, Feb. 8.

Temperature.—Greatest monthly range, 57°, April; least monthly range, 39°, July. Highest mean temperature of three consecutive days, 83°, June 20–22; lowest mean temperature of three consecutive days, 15°, January 13–15.

Precipitation.—Longest period without precipitation, 19 days, September 12-30; longest period with precipitation, 6 days, July 27 - August 1. Greatest amount in 24 consecutive hours, 2.12 inches, December 13-14. Maximum amount in 5 minutes, 0.38 inch, June 29; 10 minutes, 0.55 inch, June 29; 15 minutes, 0.68 inch, June 29; 30 minutes, 0.63 inch, June 29; 1 hour, 0.97 inch, June 29.

Frost.—Last killing frost in spring, April 12. First killing frost in autumn, October 26.

Snow.—Greatest snowfall in 24 hours, 12.0 inches, January 24-25. Greatest depth of snow on ground, 12.0 inches, January 25. Last snow in spring occurred on March 29; first in autumn occurred on October 26.

Thunderstorms.—First thunderstorm occurred on May 8; last thunderstorm occurred on September 1.

## Monthly and Annual Mean Temperatures

Year	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.	Oct.	Nov.	Dec	An'1
1871	26.0	28.6	41.5 26.0	47.0	57.9	65.9	70.8	71.7	59.3	54.0	36.6	27.9	48.9
1872	27 . 4	28.1		46.6	59.4 56.8	68.9	75.6	73.0	64.5	51.8	40.6	23.2	48.8
1873	25. I 30.5	26.3	33.9	45.0 38.8	55.4	67.3	72.9	69.8	62.8	53·5 53·2	33.4 41.6	32.0 31.3	48.2 48.6
1875	20.1	22.3	31.4	42.6	57.9	66.7	72.1	71.0	60.6	50.2	35.0	29.6	46.6
1070	30.7	27.4	33 - 4	43.9	54.6	68.8	74.0	70.2	59.9	48.2	41.4	22.2	47.9
1877	24.8	34.2	34.9	44.2	55.0	66.8	71.1	72.2	65.2	52.0 56.1	44.2	36.4	50.1 50.2
1879	24.2	30.6	33.6	42.4	56.5 60.2	64.8	73.7	69.7	62.0	57.6	38.8	3°. 3 32.3	48.4
1880	34.6	31.8	33.2	46.4	63.7	68.6	71.8	70.8	65.2	52.2	38.2	26.7	50.3
1881	22.0	27.9	37.2	43.6	56.6	61.7	70.2	71.4	67.6	54.4	43.6	39.0	49.6
1882	26.0	30.4	36.0	42.8	50.6	66.8	73.2	71.5	64.0	55.4 47.7	39.0	30.4	48.8
1883	24.4 24.I	31.2	30.8	45.2 43.8	56.5	70.I 67.2	71.7	68.2 69.7	59.8	52.6	42.8 41.4	29.I 33.8	47·9 49·0
1085	27.4	20.6	27.6	47.2	53.2	66.8	71.8	67.8	60.1	51.6	44.0	32.7	47.6
TSSD	25.8	26,6	33.3	48.6	56.8	63.2	71.2	68.2	63.1	52 0	43.2	28.4	48.4
1887	25.0	28.7	31.5	44.2	59.6	65.2	74.6 68.8	67.6	59.8	51.5 47.8 48.5	42.2	32.4	48.5
1889	20.1	28.3	32.2 38.2	42.6 47.8	53.0	66.8	69.4	70.2 67.4	59.8 62.8	47.8	43.8	34.6	47.3
1890	35.8 32.4	33.2	34.9	46.3	57.0	64.2	71.0	68.9	62.0	51.0	44.6	38.0	50.7 49.1
1891	31.1	32.0	33.6	48.0	55.8	65.0	69.0	70.0	66.7	51.6	41.4	40.4	50.4
1892	28.3	28.4	32.9	48.4	55.9	69.6	73.0	70.2	62.5	52.7	41.2	29.9	49 • 4
TXO2.	20.7	26.8	32.8	44 • 4	56.3	64.8	71.4	69.6	60.0	54.8	42.2 38.2	30.4	47.9
1894	30. I 28.8	26.6	42.5 34.6	47.0 46.0	57.6	68.8	73·7 69·3	68.0 71.0	64.8 65.7	54.0 49.6	45.4	32.2 35.6	50.3 49.8
1896	24.0	28.7	32.0	47.2	60.3	66.1	71.8	70.7	62.2	50.2	46.5	30.4	49.2
1897	28.4	30.9	36.9	49.0	57.6	62.3	71.6	69.6	63.I 66.2	54 - 4	41.4	34.0	49.9
1000	28.7	32.8	42.8	43.8 48.1	55.8 57.8	65.8	71.8	73.1 68.8	66.2	54.2	42.0	32.0 36.2	
1899	29.0	26.8	34.0	48.6	57.8	70.0 63.6	72.6	71.1	62.0	54·5 56.6	42.I		50.2
1900	30.0 27.6	29.3	34.0 36.2	43.5	55·2 54·3	68.2	73.8	70.7	65.0	54 • 4	44.6 37·2	34·4 32·4	50.8
1902	26.6	28.8	43.4	48.4	57.6	64.3	73·4 67·8	67.6	62.6	53.6	46.2	28.5	49.6
1903	26.8	31.4	44.4	47.8	58.5 60.8	59.8	71.4	65 0	64.4	53.9	40.0	29.0	49.4
1904	21.6	22.6	34.6	44.6	60.8	64.0	71.4	68.7	62.5	50.6	38.2	25.8	47.1
1905	25.1	23.4	37·2 32·4	46.8	57.6 58.0	65.2	73.2	68.6	62.0	53.6 52.5	41.6	35.I 29.I	49.1
1907	35·7 27.0	29.7 21.6	37.9	43.4	52.4	65.1	72.4	69.6	64.4	49.8	43.2	37.2	48.7
1908	31.0	26.8	38.6	46.8	59.0	69.8	74·I 71·5	69.4	64.4	1 55 • 4	43.6	33.3	51.2
1909	30.3	32.6	36.8	47.8	55.8 57.6	60.4	71.5	69.4	62.6	52.8	40.4	30.8	50.5
1910	32.0 31.8	29.5	42.0 35-4	51.6 46.1	57.0	65.2 65.6	74·9 77·1	68.8	62.8	56.0	41.8	27.5	50.8
1911	21.4	27.7	36.0	47.4	58.6	68.0	73.2	69.0	63.7	57 • 4	45.6	39.4	50.5
1913	39.2	27.7	42.4	48.0	55.2	67.5 67.3	73.8	70.8	62.0	56.4	46.5	37.8	52.3
1914	28.7	24.3	36.7 35.8	45-3	60.4	67.3	68.6	70.4	64.6	57.0	42.7	30.4	49.7
1915	33.0	33.2	35.8	50.8 45.6	56.6	63.9	70.1 72.6	69.1 71.8	66.8	55.7	45.4	34.2	51.2
1917	30.2	25.5 25.8	37.2	44.0	50.7	65.8	73.3	72.8	60.2	51.9	39.4	23.7	47.9
1918	21.0	26.9	36.7	47.8	63.3	63.9	71.0	70.4 68.8	61.2	56.2	45.0	34 7	49.8
1919	33.2	32.6	40.8	46.9	59·I	67.2	74.0	68.8	63.9	55. I 59.8	42.8	34 7 28.7	51.1
1920		27.6	39.2	45.0	54.6	65.8	72.4	72.0	65.2		41.7	35.6	50.0
1921	32.I 27.2	32.6	<b>46.2</b> 39.8	43.7	58.0	68.2	73.2	69.8	68.5	55·2 55·1	41.6	31.4	52·4 51·3
1923		23.4	33.9	48. 2	57.6	69.3	70.0	69.4	64.2	55.5	44.6	40.4	50.3
1924	31.0	20.6	37.4	47.2	57.6	69.3	73.8	69.4	62.2	55·5 54.6	44.6	31.1	50.3
1925	27.2	38.0	43.0	49.8	57 - 4	70.9	72.4	71.2	64.0	49.3	43.6	33.6	51.7
1926	31.0	27.8 32.6	34.2 41.6	44.8	55.2	64.3	70.5	70.4 67.4	62.4	53·4 57·9	44.2	28.6 36.0	49.0
1925	33.0	29.6	37.0	46.8	55.4	65.0	73.2	73.6	62.4	56.6	44.8	38.5	51.3
1929	29.0	31.7	41.4	47.1	55·4 61.0	65.0	72.6	69.3	65.2	53.2	44.7	32.0	51.4
1930	31.8	34.1	38.3	47.6	59.4	72.4	72.6	70.5	69.4	53.0	45.0	33.2	52.3
1931	30.6	30.6	39.3	50.2	60.3	66.4	74.0	72.2 74.0	66.9	58.5	49.4	36.6 38.1	53.0
1932	37.8	33.7	35.7	46.5	61.6	69.6	70.8	71.8	65.8	52.7	38.3	26.8	50.9
1934	29.6	33.7 17.5	35.1	48.0	60.6	66.9	73.2	67.3	64.6	1 49.6	45.6	28.4	48.9
1935	23.2	27.8	35.I 38.4	45.2	55 - 5	65.5	72.6	70.7	61.4	53.8	45.4	27.I	48.9
1936	28.2	22.8	41.8	45.2	60.6	66.2	71.1	69.7	62.6	54.4	39.5	35.0	49.7
1937	37·4 28.0	33.2	34. I 39. I	45.2	59.1	65.4	73.2	74.6 73.6	63.0	52.6	46.4	31.2	51.2
1939		32.2	33.2	43.6	56.4	65.6	71 8	73.8	64.5	54.2	40.4	33.4	49.8
1940	23.0	29.6	33.1	43.6	56.2	65.1	71.6	73.8	63.3	50.6	42.9	34.3	48.5
1941		29.4	33 • 4	51.6	59.8	68.2	71.4	70.6	66.0	55.9	48.0	35.2	51.2
M'ns	28.5	28.5	36.3	46.5	57 • 5	66.6	72.1	70.2	63.7	53.6	42.6	32.3	49.9

Note .- Bold-face figures indicate highest and lowest monthly means.

BOSTON, MASS.

MAXIMUM TEMPERATURE FOR BACH DAY OF YEAR
RECORD EXTENDS FROM MARCH 1, 1872 TO DECEMBER 31, 1941

Dat e			೧೭ ೦	o 🕶	5	1 0	~ 00	6	0	٠,٠	N 01	ক	5	9	٠. ٢	<b>20</b> C	2 5	2 ==	03	63	4	20.	901	<u></u>	20 9		2 =	
-		80	: :::		÷	19126		÷	÷	-			÷	÷	-	-	_				÷	Ť		÷	-			_
December	K. Year			_	-	09 09 01			_	-		_			_				-		_				-			
-	Max							_	_	_		_						_		_			_			_	_	_
November	Year					1938			_				_										_			_		<u>:</u>
Nove	Max.	74	77	74	7.5	19	7.4	71	78	99*	909	389	20	9/	2/9/	38	25	74	74	77	7.5	89	29	72	68	£0.0	9	:
ber	Year	1881	1922	1898	1922	1910	1879	1932	1939	1914	1030	1923	1897	1897	1923	1908	10.00	1920	19:20	1900	1900	1899	6681	1920	1927	1918	1806	1000
October	Max.	06	တ် အ	855	87	000	0000	*81	26	500	x 00	818	98	88	08	200	25	2.50	78	80	9 9	75	7.4	9/	20	200	0 1/2	2
iber	Year	1881	1929	1884	1880	1850	1872	1897	1931	1931	1877	1931	1915	1939	1915	9061	1002	1895	1895	1895	1914	1956	1881	9161	1881	1884	1201	:
September	Max.					100				_				-	_	_				_	_					_		<u>.                                    </u>
	Year	116	917	978	87.6	1931	916	872	964	000	207	918	938	87.6	913	584	000	937	939	880	868	606	000	881	877	280	200	
August	Max. Y					97			_	_			-								-			_	_	-		-
	Year   M	72		===	19	1911	37	15	= 0s	118	200	737	73	90	8	31	000	26	97.	18	88	35	95	32	31		175	==
July	-	-				101			_				_				_	_	_		_	_	_	_				
	r Max	-							_					_									_	-			_	<u> </u>
June	r. Year					1925			_				_		_		_							_				:
	Max.	6.	ŏ.	n 3.	. 6	100	n 61	6	* =	666	 	, ö.	6	<u></u>	ස 	<u>څ</u>	5 c	0	6	5	Ö,	6*	6	ő	60	5i c		:
May	Year	1899	1930	1880	1919	1930	1895	1889	9681	1895	1030	1908	1900	1932	1903	1936	1909	1993	1941	1941	1936	1932	1880	1880	1931	1931	1027	1001
R	Max.	68	91	£ 86	86	3.6	200	8	94	83	A 10	88	93	93	\$ <del>6</del>	6.6	000	0 00	*92	96	91	91	97	96	9.5	#6# 0	*0.5	6.0
E	Year	1918	1918	1923	1928	1928	1929	1921	1922	1887	1808	1938	1896	1896	1918	1896	1011	1923	1926	1908	1885	1897	1872	1935	1988	1903	9001	
April	Max.	92	12	7.7	25	25	₹ 50 6	22	85	75	200	- 62	8.5	- 62	25	0 00	700	8 6	282	85	25		85	<del>-</del>	68	00 S	20	:
ch ch	Year	1902	1874	1880	1880	1894	1878	1921	1878	1927	10.07	1927	1913	1935	1935	1934	1001	1921	1929	1938	1920	0161	1:77	1914	1921	1910	9801	2007
March	Max.					202		_	_	_			_										_					
ury	Year	916	933	914	890	6061	933	925	868	925	075	884	939	910	883	280	000	906	912	930	930	930	116	280	903	820	:	-
February	Max. Y					57 1			_			-	_	-	_		_		_		_				_			
-	Year	92	06:	32	60	1913	300	37	දි දි	177	15 30 30	- 25	35	06		C i	200	90	116	90	90	91	9:	91	910	70.	1 00	
January	Max. Yo					62 19		_			-			_			_		-									
	0)																	_										
1 2	Dat					- 1					1 -	ıř	1	ř	-	7	10	3 63	જે	જે (	N C	200	Ñ Ĉ	200	N C	6 0	000	,

\* Has occurred on previous dates also.

BOSTON, MASS. MINIMUM TEMPERATURE FOR EACH DAY OF YEAR CORD EXTRINDS FROM MARCH 1, 1872 TO DECEMBER 31, 1941

	1	damary	repruary	Harry	Ma	March	April	E	May	×	o une	ne ne	o uty	<u>^</u>	Muguse	361	September	Ingai	October	120	TACACI	I Januaron	necember	uner	2
Date	Min.	Year	Min.	Year	Min.	Year	Min.	Year	Min.	Year	Mia.	Year	Min.	Year	Min.	Year	Min.	Year	Min.	Year	Min.	Year	Min.	Year	Date
	- F	1918	-7	1920	ī	1886	13	1923		1880	44	1876	51	1885	54	1891	50	1887	38	1888	26	1885	0	1875	
. 03	9	1899	-12	1881	0	1886	16	1919	3 83	1874	4:5	1884	51	1883	99	1929	64	1896	200	1899	56	1879	7	1876	
3:	ī	1904	-12	1881	6	1938	233	1894		1887	44	1915	51	1914	55	1927	47	1893	92	1899	27	1875	0	1890	
4	25	1910	-2-	1886	эo *	1938	19	1879		1161	44	1881	23	1914	2.9	1900	433	1872	50	1888	5	1879	7	1906	***
5	e	1910	-10	1918	4-	1872	11	1874	-	1907	45	1891	5.5	1933	99	1907	48	1896	58	1881	17	1879	4	1926	2
9	-10	9681	9-	1895	∞ 	1872	- 50	1881		1891	46	1895	50	1879	52	1881	43	1888	31	1883	21	1879	6	1901	9
7:	7.	1896	15	1875	2	1872	55	1881	_	1900	*45	1932	52	1905	55	1885	43	1888	30	1883	52	1884	4	9061	2
8:	9-	1878	-12	1934	20	1883	- 17	1888	-	1882	4.5	1932	55	1909	52	1903	48	1903	36	1883	25	1921	7	1902	8
. 6	60	1887	-18	1934	6	1885	7.7	1876	-	1917	47	1923	233	1909	53	1899	47	1883	35	1873	-56	1887	20	1905	6
10	7	1875	-5	1875	6	19.29	56	1917	-	1902	45	1881	53	1890	55	1910	41	1883	33	1925	*57	1933	Γ	1905	. 10
11	-4	1893	-4	1890	6	1939	.75	1909	-	0061	46	1881	54	1890	54	1879	40	1917	35	1881	24	1901	<u>:1</u>	1876	11
12	01-	1886	-11	1914	7	1900	20	1874	-	1907	95	1906	54	1886	99	1913	43	1875	31	1876	52	1926	7	1934	12
13	6-	1914	-3	1914	33	1885	.70	1874		1882	46	1881	*56	1933	53	1905	45	1911	30	1875	+1	1883	4	1898	13
14	<u>∞</u> !	1914	1.3	1934	12	1896	26	1940		1895	46	1875	55	1937	52	1882	40	1884	53	1875	16	1905	0	1898	14
15.	က	1920	-2	1875	*12	1932	#30 #30	1940		1882	44	1884	54	1929	54	1905	41	1913	31	1876	17	1933	-2	1874	15
16	-5	1920	4-	1888	01	1872	58	1928		1936	48	1903	54	1884	47	1880	45	1899	30	1883	12	1933		1883	16
17	14	1907	=	1896	10	1916	56	1908	_	1882	48	1926	54	1892	52	1880	45	1887	27	1886	14	1924	1-4	1919	17
18	ī	1904	0	1896	2	1845	56	1887		1885	47	19.20	27	1881	53	1918	43	1875	*31	1939	14	1936	9-	1919	18
19	9	1904	*	1936	50	1876	7.5	1875		1882	47	1920	54	1881	- 19	1882	45	19.59	58	1922	14	1936	-10	1875	19
20	-3	1901	9	1916	10	1885	21	1897	_	1892	47	1918	54	1890	52	1905	*42	1929	32	1900	15	1894	=	1875	20
21	0	1888	0	1916	1~	1885	21	1875		1907	48	1940	52	1830	52	1882	*40	1929	*32	1940	10	1879	ī	1924	21
22	-3	1888	2	1918	00	1885	.56	1875	_	1894	46	1840	22	1890	47	1894	35	1904	.78	1940	<u>С</u>	1879	_	1883	22
23	9-	1882	-13	1876	9	1934	30	1872		1882	*47	1932	#27	1934	49	1886	35	1904	53	1883	=	1880	-12	1853	23
24	13	1882	-1	1894	9	1874	- 58	1882	-	1885	*46	1932	54	1893	200	1873	33	1885	#31	1939	=	1880	0	1892	24
25	2	1935	91	1894	01	1878	27	1892		1925	48	1903	53	1901	20	1890	33	1890	56	1879	133	1938	ж П	1872	25
28	0	1927	T	1928	18	1880	28	1919	-	188.7	55	1903	- 99	1920	46	1940	34	1879	52	1879	*12	1938	77	1914	26
27.	9-	1924	-4-	1900	16	1873	33	1909	-	1915	52	1897	52	1876	47	1880	40	1887	25	1936	00	1932	0	1914	27
28	-5-	1935	2	1907	11	1923	32	1882		1917	5.5	1918	54	1884	47	1885	33	1914	28	1936	11	1873	-3	1872	28
29	9-	1888	က	1884	4	1923	31	1909	_	1905	49	1919	55	1880	47	1908	34	1914	.76	1876	œ	1875	-17	1933	29
30	9-	1873	:	:	10	1884	31	1874	_	1884	52	1919	52	1880	64	1912	36	1888	28	1928	7.	1875	-15	1933	30
31	201	1920			15	1653			-	1884			54	1805	40	1010			5.6	1904		-	×	1017	. 31

\* Has occurred on previous dates also.

## Maximum Amounts of Precipitation

25	5 mi	in's	10 m	in's	15 m	in's	30 m	in's	ı ho	ur	2 ho	urs	24 ho	urs
Month	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.
Jan Febr. Mar April. May June. July Aug Sept. Oct. Nov Dec High-est	.15 .10 .15 .13 .55 .42 .50 .55 .25 .25 .34 .21 .15	1936 *1926 1913 1936 1932 1925 1927 1908 1902 1928 1937 *1908	. 14 . 23 . 19 . 62 . 72 . 67 . 91 . 43 . 54 * . 31 . 21	1936 *1918 1913 1921 1932 1905 1916 1908 1927 1928 1932 1937	.29 .20 .26 .24 .63 .75 .85 1.12 .67 .67 .26	1936 1920 1913 1920 1932 1905 1916 1908 1934 1928 1927 1937	.33 .39 .31 .65	1936 1920 1913 1920 1932 1925 1916 1908 1911 1906 1932 1937	.50 .69 1.07 1.62 1.80 1.10 1.58 .83 .81	1919 1920 *1932 1931 1926 1922 1921 1901 1904 1932 1937	1. 03 . 78 . 94 1. 28 2. 45 2. 27 1. 74 1. 74 . 94 1. 47	1919 1920 1932 *1931 1926 1922 1915 1917 1904 1906 1927 1937	4. 45 3. 04 3. 19 3. 31 5. 35 6. 04 4. 99 5. 63 4. 92 5. 43	1881 1886 1877 1921 1920 1875 1921 1879 1933 1895 1876 1937

## MONTHLY AND ANNUAL PRECIPITATION.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An'l.
		1	1		1 .		1	1 .	1 _	1	[	0	1
1818	2.64	3.49	4.05	6.15	5.96	3.47	4.08	0.46	7.81	2.11	1.91	0.86	42.99
1819	0.70	2.27	6.21	3.74	3.06	3.56	2.02	4.38	5.29	1.40	1.22	1.63	35.48
1820	3.12	4.25	4.90	0.45	5.08	3.42	4.19	5.15	2.43	5.39	3.00	2.80	44.18
1821	1.41	4.42	2.53	4.90	4.84	2.79	2.35	1.53	4.73	2.29	3.12	1.93	36.59
1822	1.29	2.34	2.02	2.99	6.40	3.54	4.32	1.20	2.15	2.53	2.58	1.46	27.20
1823	3.00	4.57	7.72	1.72	1.43	1.60	5.74	3.68	6.43	3.95	1.92	6.93	47.30
1824	3.95	5·99 3·43	4.70	0.37	1.43	4.77	1.24	5 62	2,66	3.21	0.81	4.38	35.34
1826	2.79	1.48	3.81	1.50	0.25	3.85	2.90	5.62 12.10	3.03	3.80	2.31	3.56	41.14
1827	3.92	2.97	2.51	4.75	5.34	2.56	2.59	4.88	4.81	5.28	5.71	3.59	48.91
1828	2.15	2.79	1.84	2.00	4.67	1.59	4.58	0.37	3.82	2.79	5.55	0.26	32.41
1829	4.93	5.62	4.30	3.45	2.71	1.64	6.98	4.95	2.62	1.65	5.74	2,26	46.85
1830	2.36	1.63	3.51	1.21	3.93	3.46	4.90	2.64	5.65	2.38	5.32	5.96	42.95
1831	4.44	3.68	3.07	6.97	3.65	4.32	5.53	5 - 57	3.83	4.42	3.20	2.93	51.61
1832	4.47	3.74	2.65	5.56	7.27	0.50	3.41	6.14	2.07	2.46	3.57	4.85	46.69
1833	2.96	2.53	2.71	2.30	1.03	3.23	2.01	0.82	2.88	6.00	5.53	5.86	37.86
1834	1.39	1.13	0.96	2.93	6.33	3.09	7.71	2.47	3.71	4.62	2.90	2.36	39.60
1835	3·25 8·84	1.37	4.27	4.54	2.07	2.74	9.07	2.89	1.31	1.87	2.08	2.40	37.86
1836		3.57	2.90	1.58	1.85	4.33	2.12	1.53	0.54	4.04	5.43	4.13	40.86
1837	4.10	4.14	3.02	3.07	5.79	2.98	1.80	1.67	0.56	1.58	2.35	2.46	33.52
1838	3.07	2.77	3.09	2.62	3.32	2.55	1.20	4.26	9.87	5.02	3.95	0.80	42.52
1839	0.98	3.1:	4.55	7.73	4.27 2.23	2.25	3.32	5.70	2.12	2.50	11.63	6.35	41.10
1841	3.12	1.60	3.50	8.82	1.90	1.95	2.10	4.20	2.86	3.So	4.55	5.77	47.05
1842	0.80	3.20	3.35	3.50	2.90	5.30	1.82	4.44	3.25	0.80	4.45	5.30	39.11
1843	2.20	6.08	6.17	3.88	1.60	4 61	2.15	6.83	0.98	4.82	3.40	3.92	46.69
1844	3.68	2.42	6.00	0.20	2.72	1.40	2.17	2.62	3.53	5.80	3.15	3.85	37.54
1845	4.58	4.25	3.83	1.23	2.82	2.05	3.28	1.82	2.23	4.00	10.25	5.98	46.32
1846	3.12	2.95	2.73	1.23	2.02	2.25	2.51	1.80	1.30	1.35	4.17	4.52	29.95
1847	3.28	4.70	4.77	2.20	2.03	4.09	2.65	6.45	6.64	1.05	5.12	3.95	46.93
1848	2.30	3.90	4.05	1.40	6.30	1.73	1.35	3.10	3.55	5.10	2.25	5.95	40.98
1849	0.35	1.15	7-35	0.90	3.10	1.45	0.85	6.25	1.25	8.10	5.50	4.05	40.30
1850	4.59	2.52	5.32	4.82	6.63	2.77	2.70	5.30	7.15	2.10	3.32	6.76	53.98
1851	1.30	4.20	3.88	9.37	3.31	1.80	3.00	1.27	3.50	4.43	5.51	2.65	44.31
1852	4.85	2.85	4.45	10.18	1.95	2.35	3.28	7.63	1.65 3.80	2.19	3.47	3.09	47.94
1853	2.44	5.30	2 27	3.78 6.63	4.33	2.47	3.64	9 40	3.86	3.92 2.08	4.43 6.80	3.95 4.64	45.71
1855	7.22	4.67	1.18	4.28	1.20	3.09	4.15	1.46	1.13	4.61	5.27	5.93	44.19
1856	5.32	0.80	1.33	4.37	7.10	2.90	4.02	11.11	4.90	. 2.70	3.33	4.28	52.16
1857	5.36	2.45	3.09	10.83	5.57	2.02	5.53	7.18	2.56	4.50	2.52	5. 26	56.87
1858	3.28	2.30	2.18	5.18	3.89	8.09	4.56	7.03	5.02	3.03	3.38	4.73	52.67
1859	5.93	4.05	7.64	3.36	3.63	7.89	1.58	4.72	4.40	3.28	3.75	6.47	56.70
1860	1.89	3.85	2.19	1.73	2.35	8.01	5.90	4.30	7.35	2.66	5.37	5.86	51.47
1861	6.04	3.57	7.48	5.89	2.97	3.64	2.76	6.04	1.77	2.66	4.90	2.35	50.06
1862	8.30	3.29	4.70	1.97	2.70	6.78	7 · 33 12 · 38	4.20	5.61	4.85	8.32	3.0I 6.34	61.06
1853	4.51	4.54	6.42	9.08	2.82	2.56		5.64	3.12	3.83	6.48	6.34	67.72
1864	3.87	1.43	11.75	4.72	3.31	1.47	1.90	4.17	2.60	4.So	4.00	5.28	49.30
1865	4.47	5.08	4.83	2.57	6.90	2.83	4.26	3.87	0.62	6.21	4.46	4.18	47.83
1867	3.73	5.28	6.12	2.03	5.04	2.74	5.42 4.76	10.78	5.90	2.72 6.76	3.74	2.48	50.70
1868	6.00	1.88		6.91	10.38	3.79	1.10	7.53	11.95	1.78	5.31	2.32	64.11
1869	4.03	9.98	5.04 8.74	2.05	6.88	4.44	3.30	2.19	5.18	6.71	3.74	9.04	66.28
1870	8.16	7.03	4.88	8.42	2.58	7.59	4.01	1.57	0.67	6.80	4.40	3.62	59.73
1871	0.92	2.63	4.55	3.79	4.34	5.55	3.22	3.08	1.30	5.88	6.42	3.38	45.06
1872	2.11	2.31	4.05	1.31	3.29	4.84	4.00	10.68	6.04	4.85	3.66	3.09	50.23
1873	5.76	3.21	3.76	3.83	5. 16	0.54	3.84	6.21	2.91	5.33	8.34	5.64	54 • 53
				U	No.			3	1	1	,	13	

MONTHLY AND ANNUAL PRECIPITATION-Continued.

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Year.	Jan.	Feb.	Mar.	Apr	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	An'l.
1874	4.32	3.41	1.60	7.97	3.71	3.94	3.47	6.67	2.05	1.39	2.85	2. 14	43.52
1875	3.68	3.74	5.04 7.19	4.92 3.61	3.76	7.25 1.72	3·93 5·86	3.50 1.23	3.12	4.99	5.47	0.75 3.71	50.15 48.96
1877	3.33	4 · 54 0 · 45	9.79	4.19	3.38	3.21	2.27	4.49	0.60	8.84	9.62	1.32	51.49
1878	7.60	4.40	5.91 3.90	6.14	0.97	6.24	4.58 3.09	7.66 6.71	3.47	6.76	8.94	6.76	65.53
1880	3.72	4.11	3.25	2.85	1.63	0.75	6.86	2.90	2.35	3.15	2.30	3.42	37.30
1881	7.21 3.68	4.89	9.86 3·35	1.66 2.50	4.16	7.79 1.03	2.96 3.91	I.23 I.46	2.50	2.84	3.73 I.20	3.80	52.63
1883	3.59	2.74	2.33	2.83	5.11	2.07	2.73	0.39	1.50	6.40	2.08	3.71	35.48
1884	6.27	5.74	4.86	4.76	3.31	4.01	4.25	5.01 7.64	0.31	3.17	3.03	4.46 2.09	49.18
1885	5·33 7·08	3.00 7.04	3.20	3.30 1.70	4.26 3.08	3.70 1.34	1.44	3.64	2.73	5.71 3.27	5.78 3.59	3.66	45.10
1887	4.85	3.69	3.86	2.62	1.67	1.98	3.59	3.05	0.97	2.53	2,22	2.71	33.75
1889	2.26 4.II	2.36	3·32 I.19	3.07	5.20	2.69	1.79 5.80	6.53	6.77 3.19	3.58 3.31	4.97 4.91	4.38 1.83	45.89 39.82
1890	2.00	2.29	5.88	2.29	4.48	2.21	1.93	3.95	5.04	5.63	0.97	3.72	39.14
1891	4.62	3.66 2.15	3.94	0.93	1.56	3.06	3.73 2.56	3.87	2.29 1.90	5.56	2.35	3.58 1.12	39.70
1893	2.56	6.22	2.80	3.13	5.23	2.20	1.72	6.46	1.59	2.94	1.83	5.16	41.84
1894	3.01	3.15	2.72	3.78 3.65	4.12 2.71	0.80	3.09 2.98	3.03	2.14	5.11	8.07	4.28	36.62
1895	3.79	3.94	5.41	1.56	1.68	1.73	2.90	2.15	6.40	3.15	3.70	1.70	37.55
1897	3.16	2.12	2.79	3. 17	4.00	4.46	4.22	3.95	2.38	0.41	6.19	3.92	40.77
1898	3.50 4.19	4.81	1.82	6.39 1.29	4.33 0.81	1.60 2.86	4.42	6.38	1.93	7.17	5.3 <sup>2</sup> 2.5 <sup>I</sup>	2.19	49.86
1900	4.20	6.83	4.60	1.90	5.07	1.85	2.69	2.46	4.62	3.41	4.17	2.25	44.05
1901	1.56	0.66	6.58	7.43	6.31	1.31	5.20	3.25	2.50	3.02 4.36	2.41	8.49	48.72
1903	3.43	3.90	5.95	4.43	0.32	7.19	2.99	3.33	2.43	3.95	1.48	2.57	41.97
1904	4.80	2.49	2.43	9.14	3.38	2.06	1.23	2.19	5.57	0.82	1.70	2.52	39.64
1905	4.09 2.96	2.66	2.25	2.14	4.91	5.23	5.38	3·39 1.58	2.64	3.88	2.55	3.96	40.69
1907	2.54	1.88	1.66	3.31	3.12	2.56	1.09	01.1	7.43	2.54	6.02	4.31	37.56
1908 .	2.47 3.94	2.96 4.7í	2.97 3.28	1.70 3.92	3.78	1.08	3.17	4.35	0.68	3.70	0.74	2.47 3.19	30.07
1910	4.25	3.44	1.25	2.22	1.02	4.89	1.15	0.98	2.14	1.14	3.75	2,10	28.33
1911	2.28	2.85	2.95	2.28 3.07	0.35	3.67 0.27	4.65	4.17	2.95	1.00	2.61	3.07 5.36	35.78 34.55
1913	2.38	2.99	4.81	4.77 5.87	3.22	0.64	2.69	2.86	2.51 0.21	6.04	2.15	3.05	38.11
1914	3.26	3.07	4.16 T.	5.87	1.64	1.40	2.64 8.85	3.20	0.21	1.54 2.82	2.72	3.46	34.31 38.76
1915	1.23	3.47 5.18	3.20	4.51	2.83	5.04	5.67	2.19	1.90	0.94	1.67	3.00	37.36
1917	2.82	2.67	3.73	2.72	4.45	4.05	1.10	7.06	1.91	5.33	1.20	2.56 3.21	38.99
1918	3.11	2.30	3.19	3.08	1.99	1.94	4.63	5.07	9.19	0.99	5.36	1.63	34.40
1920	2.72	5.88	3.72	5.68	5.26	5.78	1.56	2.32	1.90	1.64	5.46	3.89	45.81
1921	1.41	2.64	1.92	4.62	3.64	3.58 8.05	2.63	1.63	3.66	1.24	6.19	2.35 3.01	42.96
1923	6.07	1.18	2.49	5.26	5.34 0.83 2.81	2.03	3.36	4.75 1.86	0.38	3. 37 0. 06	2.78	4.98	34.89
1924 1925	3.27	2.61	5.21	3.79 2.48	2.81	1.07	2.04 3.54	6.86	6.96	0. U6 4. 03	3.66	1.48 5.20	34.92 41.15
1926	2.53	5.56	2.91	1.73	3.31	1.33	6.06	3.91	1.08	3.58	4.07	3.96	40.03
1927	2.67	3.28	1.19	1.36	3.08	2. 43	4.77	6.73	2.43	3.77 2.88	4.71 1.85	5.23	41.07 37.60
1929		3.78	2.80	7.52	2.82	5.56	1.35	2.45	0.76	2.38	3.01	4.43	37.19
1930	2.77	2. 23	3.02	2.08	3.39	2.24	3.36	3.03	0.26	5.83	4.09	2.99	35.29
1931		4.21	4.66	3.12	1.63	9.13	2.43	4.45	1.67	2.18	0.82	2.90	44.17
1933	2.04	3.77	6.80	7.37	2.74	I.22	2.63	3.41	10.94	3.11	0.65	2.93	47.61
1934	6.13	3.26	1.52	3.21	1.56	3.11	I.25 I.10	1.83	5.67	2 94 0.34	3.91	0.66	34.15
1936	6.46	3.66	6.40	3.54	1.70	2.37	1.04	5.15	3.79	2.67	1.33	8.19	46.30
1937	3.93	2.38	3.57	5.34	2.52 4.42	3·47 6.30	9.46	4.97 3.31	3.69	3.95 2.43	2.89	2.80	43.67
1939		3.79	5.23	4.54	1,29	2.70	0.75	2.14	1.01	4.77	1.14	2.91	32.45
	1.68			4.58	3.28	1.80	3.17	0.85	2.32	0.76	6.24	2.76 3. 19	36.05 30.87
		·		i				1.55					
M'ns M'ns	*3.57 †3.63	3.29	3.79 3.95	3.58 3.78	3.12	3.14	3.35 3.48	3.64	3.18	3.29 3.44	3.57	3·34 3.64	40.86
	Nore	_Rol	d-face	d figur	ros inc	licato	grant	act an	d leas	t mor	thly	and or	nnual

Note.—Bold-faced figures indicate greatest and least monthly and annual amounts. \* Computed from the Weather Bureau records of 71 yrs. † Averages 124 yrs. From 1818 to 1822, Dr. Enoch Hale; from 1823 to 1865, Jonathan P. Hall; from 1866 to 1870, Superintendent of Sewers.

## Hours of Sunshine

	1.			1		0			ئد		1 .	1 .	
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
****		1 107	]	<u></u>	<u> </u>	1		<u> </u>	<u> </u>	010	1	100	1
1893 1894	135	161 159	221 222	212 208	219 260	222 286	289 340	241 275	231 216	219 165	184 143	130 148	2556
1895	143	218	215	202	287	254	253	259	255	208	110	123	2557
1896	155	167	208	246	263	260	235	262	191	132	110	184	2412
1897	136	159	165 194	227	196	258	220 252	270	258	230	119	132	2370
1899	164 185	142	163	174 292	198 292	234 323	316	242 210	266 216	171 150	126 164	153	2316 2652
1900	154	146	237	234	232	311	320	261	225	146	120	142	2527
1901	134	208	158	106	212	332	266	223	218	236	134	121	2349
1902	152	170	187	175	295	295	253	304	190	196	120	142	2479
1903	149 151	174	203 197	261 211	347 281	183 249	300 277	249 262	289 229	212 184	180	168	2715 2452
1905	150	188	224	261	298	268	319	271	191	224	179	127	2700
1906	144	192	223	254	307	293	289	292	271	173	130	81	2649
1907	91	141	192	204	211	284	336	312	159	199	103	129	2363
1908	171	186 155	196 223	254 237	267 283	366 361	314 374	255 314	243 213	206 225	166	138	2760
1910	123	171	259	236	233	259	338	282	208	210	101	127	2547
1911	110	141	238	300	329	306	228	281	241	175	171	135	2764
1912	136	202	238	234	281	390	339	301	224	226	170	160	2902
1913	141 106	203 192	193 166	236 217	272 252	353 279	335 254	287 201	224 274	90 209	150 148	140	2623 2419
1915	134	166	292	220	299	291	275	256	275	200	160	138	2705
1916	149	144	228	206	274	278	260	306	275	232	160	167	2678
1917	118	171	224	204	214	257	306	307	267	186	193	112	2558
1918	165 134	170 213	248 173	250 185	311 276	304	271 301	264 260	207 193	165 134	143 125	110	2608 2451
1919	147	143	237	183	252	238	343	246	226	228	88	152	2484
1921	163	159	210	174	288	332	274	339	269	224	94	132	2659
1922	172	114	178	248	532	251	294	224	252	214	139	96	2514
1923	116 162	160 199	193 234	241 224	291 225	281 289	$\frac{255}{347}$	286 275	222 222	200 251	145 171	118 122	2512 2723
1924	141	156	210	261	274	311	301	294	209	145	160	134	2596
1926	106	126	211	236	283	270	268	200	215	196	160	130	2401
1927	133	118	255	343	218	306	241	233	266	253	132	152	2651
1928	191 171	201 162	247 211	279 182	262 326	249 346	298 367	242 296	193 205	230 193	105 136	171 118	2669 2712
1929	113	181	236	293	271	316	274	294	275	195	155	130	2724
1931	208	170	193	275	284	268	244	240	243	223	149	125	2622
1932	96	137	222	257	338	291	343	339	268	174	165	150	2780
1933	175	207	195	197	282	289	291	239	200 120 l	218	149	95	2537
1934	118 142	183 132	237 225	278 162	311 254	$\frac{287}{207}$	$\frac{286}{248}$	241 267	163	187 251	130 90	140 126	2518 2265
1935	175	167	204	192	320	289	369	254	212	198	148	115	2643
1937	121	163	236	208	244	244	309	257	259	162	141	150	2492
1938	121	114	176	233	279	302 295	242	326 260	213 230	178 150	160 170	126	2470 2425
1939	119 174	135 153	180 214	177 197	276 221	295	325 293	305	230	213	96	108 93	2425
1941	127	170	217	257	262	259	243	294	290	205	217	125	2666
Aver'.	142	166	213	227	271	256	292	270	229	197	143	134	2570
Posble	295	†297	371	401	452	455	461	429	374	343	295	284	4457

<sup>†</sup> Leap years not considered.

## EXTREMES OF BAROMETRIC PRESSURE, 1872-1941

	Sea	Level P	ressure				
			P	RESSUE	RE		
MONTH	Aver- age	Maxi- mum	Year	Day	Mini- mum	Year	Day
January February March April May June July August September October November		31. 00 31. 03 30. 96 30. 72 30. 63 30. 57 30. 51 30. 48 30. 65 30. 75 30. 87	1920 1920 1904 1911 1936 1884 1892 1934 1888 1879 1932	31 1 5 12 22 15 7 31 7 31 28	28. 67 28. 69 28. 45 28. 86 29. 11 29. 26 29. 21 29. 26 29. 09 28. 97 28. 73	1913 1895 1932 1907 1929 1923 1932 1924 1938 1935 1873	3 8 7 9 3 27 2 26 21 25 18
December  Average or Extremes	30.02	30.96	1837	1 Feb. 1	28.80	1915	14 Mar. 7

Daily Maximum Temperature, 1941

Dave	January	February	March	April	May	June	July	August	September	October	November	December
1	39 36 40 39 30 30 30 30 33 33 33 33 36 63 77 20 34 43 48 43 43 43 43 42 42 42 42 42 42 42 42 42 42 43 43 43 43 43 43 44 43 44 43 44 43 44 43 44 43 44 43 44 43 44 44	37 29 30 37 39 37 44 47 47 38 38 39 31 31 31 32 33 33 34 41 32 33 35 41 35 41 35 36 41 37 38 38 39 39 30 30 30 30 30 30 30 30 30 30 30 30 30	39 43 45 51 36 36 33 33 34 41 45 45 45 43 44 44 44 44 44 44 44 46 47 47 48 49	44 42 50 50 44 43 49 55 63 59 52 77 78 78 73 74 89 73 59 59 50 50 74 74 89 73 89 74 89 89 89 89 89 89 89 89 89 89 89 89 89	46 44 54 71 65 67 76 64 61 65 55 76 65 65 67 76 82 67 67 85 67 67 87 89 90 90 90 90 90 90 90 90 90 90 90 90 90	62 66 83 74 58 64 58 65 65 63 68 72 67 77 80 91 92 94 95 72 72 75 82 75 82 75 82 75 75 80 80 90 77 80 80 80 80 80 80 80 80 80 80 80 80 80	87 96 74 72 81 84 88 83 78 77 71 87 77 71 87 76 76 76 89 90 92 80 80 92 80 80 80 80 80 90 90 90 90 90 90 90 90 90 90 90 90 90	81 85 82 87 80 86 69 47 79 86 69 81 74 76 69 82 77 90 83 81 76 90 74 84 73	92 77 79 77 87 87 88 65 88 85 94 65 88 88 88 88 64 65 77 60 60 60 60 60 60 60 60 60 60 60 60 60	73 74 70 84 82 79 66 67 74 66 67 74 66 67 69 66 67 69 66 67 48 47 52	62 65 59 61 64 53 66 59 50 52 49 46 44 47 65 75 71 47 44 44 45 44 45 45 45 45 46 47 56 47 57 57 57 57 57 57 57 57 57 57 57 57 57	32 53 48 59 54 54 55 43 37 40 42 42 43 44 40 42 42 40 42 40 41 41 41 41 41 41 41 41 41 41 41 41 41
Mean	31.6	36. 4	40.5	60.7	69. 2	77.2	79. 1	79. 9	76.2	64.7	56.7	42.6

Maximum temperature for year 96°, June, July.

Daily Minimum Temperature, 1941

		1) a.	Ty III	IIIIII	TILL T	amber	ature	, 104	1			
Date	January	February	March	April	May	June	July	August	September	October	November	December
1	28 24 31 30 21 19 14 14 14 18 24 22 22 22 8 3 3 12 14 32 32 33 20 12 13 23 28 17 18 18 18 18 18 18 18 18 18 18 18 18 18	18 24 21 22 24 20 22 30 30 13 8 22 25 27 20 15 21 20 26 29 28 21 20 16 16 16	31 29 36 18 18 18 24 19 29 22 24 22 22 24 28 34 16 23 35 36 36 38 38 38 38 38 38 38 38 38 38 38 38 38	38 36 36 36 36 38 39 44 36 38 38 49 51 52 52 53 44 44 43 40 48 49 44 44 44	41 41 42 44 48 54 48 55 56 56 53 50 48 44 44 43 44 44 45 45 48 56 48 56 48 56 48 56 48 56 48 56 48 56 48 56 56 48 56 48 56 56 48 56 56 56 56 56 56 56 56 56 56	54 57 58 58 52 50 52 55 56 57 57 57 57 57 57 58 59 59 59 56 57 57 58 59 59 59 59 59 59 59 59 59 59 59 59 59	62 72 62 63 64 63 70 65 66 65 58 57 66 61 64 65 68 69 66 66 66 66 66 67 66 66 66 66	63 63 61 67 64 66 66 64 66 67 60 63 64 65 67 60 61 64 65 67 60 61 64 65 67 60 60 61 61 61 61 61 61 61 61 61 61 61 61 61	60 58 53 58 63 70 62 56 51 63 55 56 60 70 68 57 70 68 55 56 69 49 49 49 49 49 49 49 49 40 40 40 40 40 40 40 40 40 40 40 40 40	59 55 55 56 56 55 55 55 55 56 57 50 59 44 42 47 47 47 48 48 49 40 49 40 40 40 40 40 40 40 40 40 40 40 40 40	43 50 47 41 48 49 50 44 41 41 41 37 28 28 28 38 38 38 38 39 39 39 30 29 30 30 30 30 30 30 30 30 30 30	19 32 38 42 44 47 21 31 22 31 31 31 31 31 31 31 31 31 31 31 31 31
Mean	18. 9	22.3	26.2	42.4	50.5	59.1	63.8	61.3	55.8	47.1	39.3	27.8

Minimum temperature for year 3°, January.

Daily Precipitation, 1941

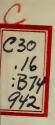
Day	January	February	March	April	May	June	July	August	September	October	November	December
7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 23. 29. 10. 10. 11. 11. 11. 11. 11. 11. 11. 11	* .07 * .85 * .01 * .7 * .55 .83 T. * T. * .83 * 1.03 * T.	. 04 * . 23 * T.	* .62 * .09  .02 * .11 * T.		.23 .36 .36 .71 .07	.10 .04 .13 1.31 .04	. 18 T	.02 T. T. .03 .08 T. .666 T. T.	T. T	.27 .44 .03 .04 .01 .01 .T		1. 65 * T.
1000	1.21	2.10	0. 10	2. 10	2. 10	2.20		2.00		2.02	2.10	0.10

T. indicates a trace. \*Wholly or partly snow.

## Daily Cloudiness, 1941 [Daylight hours; scale 0 to 10]

				7 - 3		, 500			-			
Day	January	February	March	April	May	June	July	August	September	October	November	December
1	1 9 10 10 17 6 4 4 0 9 3 3 9 10 2 2 0 7 7 10 10 10 7 7 9 8 8 8 10 5 8 8 8 6 6	0 10 9 7 0 4 10 2 1 0 0 6 6 8 8 10 10 0 8 7 3 3 6 4 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 2 10 10 0 4 8 10 10 10 11 3 4 4 10 0 0 0 0 10 0 0 0 0 0 0 0 0 0 0 0	10 10 2 1 1 10 10 4 4 2 2 2 2 2 1 1 7 8 10 9 8 1 1 4 6 7 7 1 1 6 6 7 1 1 1 6 7 1 1 1 1 6 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10 10 5 5 8 3 10 9 9 10 7 7 5 4 4 8 1 1 1 9 9 2 2 0 0 0 2 9 9 4 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 6 4 10 10 10 5 1 1 6 6 1 4 4 6 6 7 7 10 10 7 9 9 4 4 5 2 2 3 1 1 3 1 1 3 1 3 1 4 3 1 4 3 1 4 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 8 3 1 3 1 4 3 1 4 3 1 4 3 1 4 3 1 3 1 4 3 1 3 1	8 5 6 6 10 8 6 6 9 9 9 7 2 2 6 6 10 8 8 5 5 6 6 10 8 9 9 4 4 3 3 3 6 6 5 4 4 4 6 6 10 7 7 10 10 10	66344544111004413884489981144008837773396655144880	5 6 6 5 8 10 3 2 2 2 8 5 5 5 3 3 1 8 5 5 3 7 7 1 1 2 2 4 4 4 4 6 6 7 9	9 8 10 4 8 8 8 10 1 1 4 10 6 6 6 4 10 8 3 3 1 1 10 2 2 8 8 3 9 10 3 10 10 10	10 9 6 1 5 10 8 8 3 8 5 6 6 4 4 4 9 4 3 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	8 10 10 5 9 6 6 7 7 6 5 7 1 1 7 10 8 8 2 9 9 2 8 8 0 10 10 10 10 10 10 10 10 10 10 10 10 1
Mean	6.6	5. 1	5. 5	5.8	6. 1	5.6	6. 7	5.0	4.4	6.3	5. 0	6. 3

Note.—Clear (0 to 3). Partly cloudy (4 to 7). Cloudy (8 to 10).



## U S DEPARTMENT OF COMMERCE WEATHER BUREAU

# ANNUAL METEOROLOGICAL SUMMARY

WITH COMPARATIVE DATA

1942

BOSTON, MASS.

G. H. NOYES

Kurstein Ausiness Limmy

BOSTON, MASS.

Elevation of instruments above ground: thermometers, 33 feet; raingage, 3 feet; anemometer 62 feet.

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1		Min. temp.	0° or below.	0	0	0	0	0	0	0	0	0	0	0	4	4
		M ten	32° or below.	26	27	4	0	0	0	0	0	0	0	œ	24	8
		np.	900 от абоче.	0	0	0	0	0	1	2	2	1	0	0	0	9
		Max. temp.	350 or below.	6	10	0	0	0	0	0	0	0	0	0	00	27
	ays.		Dense tog.	0	0	-	0	4	0	4	1	က	-	0	0	14
	of d		Thunderstorms.	0	0	1	_	2	5	က	-	0	-	0	-	15
}	ber	more	Snow ( .01 in. or melted.)	က	4	4	2	0	0	0	0	0	0	0	4	17
	Number of days.		With precipitati	7	7	12	11	10	16	15	1	11	10	11	11	125
			Cloudy	-	6	15	10	16	13	14	15	10	10	14	14	148
			Partly cloudy.	6	10	12	13	=	14	12	=	6	13	1~	6	130
			Clear.	11	6	4	7	4	00	2	∞	11	00	6	∞	87
		per ,	Gales (32 miles	2	ಲಾ	က	0	0	0	0	0	-	-	2	က	15
		st.	Date.	23	13	က	10	12	19	9	10	27	18	10	2	Dec.
		Highest	Direction.	s,	nw.	ne.	ne.	SW.	nw.	nw.	86.	ဘ်	ne.	SW.	se.	se.
	Wind.		Velocity.	35	83	47	31	53	29	30	25	40	83	4	47	47
account forces		.noit	Prevailing direc	SW.	nw.	W.	SW.	SW.	SW.	SW.	SW.	SW.	SW.	nw.	W	sw.
- 1		-9A	Average hourly.	12.5	14.6	13.1	11.7	9.6	9.4	9.0	9.5	10.0	10.2	11.9	13.5	11.2
1010	1- 10	ble.	Percent of possi	61	63	49	53	35	46	22	99	22	63	44	33	53
	Sun- shine	·s	Number of hour	181	188	183	214	160	208	262	281	214	215	129	110	2346
-			Snowfall.	8.2	6.2	7.9	1.5	0	0	0	0	0	0	T.	8.9	30.6
	ation.		Date.	19	7-8	16-17	10-11	2 -9	19-20	2-3	13-14	9-10	17-18	24-25	29-30	June 19-20
	Precipitation.	·s.in	Greatest in 24 ho	1.81	1. 42	1.62	0.77	0.89	1.81	1.52	1.07	1.12	1.12	1.00	1.74	1.81
	Ä		Total.	3.69	3,45	7.01	1.69	2.11	4.24	4.14	2.09	1.96	2.78	4.69	4.72	42.47
2	ve	1ty	7:30 p. m.	57	54	65	62	20	69	74	67	73	20	64	19	99
	elati	numinity (per cent).	1:30 p. m.	53	20	58	51	28	61	09	54	99	52	99	99	56
		e de	7:30 a. m.	89	65	22	65	92	75	9/	72	77	79	73	72	72
			Date.	×	က	29	п	œ	18	10	56	53	28	15	20	Dec.
		mes.	Lowest.	-	-	30	32	44	48	28	20	39	36	20	7	17
-	Temperature.	Extremes.	Date.	-23	17	œ	30	30	13	14	21	2	6	-	2	July 14
	pers		Highest.	09	48	65	98	88	91	93	35	91	82	71	59	93
1	Теп		Monthly.	28.6	27.0	40.8	49.7	8.09	67.4	71.11	7.07	64.6	55.8	43.5	28.6	50.7
		Mean.	Minimum.	20.7	19.8	34.3	40.9	52.0	59.4	63. 4	63.0	6.99	48.1	36.0	21.7	43.0
			.mnmixsM	36.4	34.3	47.3	58.5	69.5	75.4	78.8	78.4	72.2	63.5	51.0	35.4	58.4
			Month.	January	February.	March	April	May	June	July	August	September	October	November	December.	Year

# COMPARATIVE DATA AND EXTREMES

[	1	Minimum temp.	69		20	
		Minimum temp.	59	226 100 100 100 100 100 100 100 100 100 10	901	
	ays	Max. temp. 90° or above	59	0000001401000	6	
	Average number of days	Dense fog	38		14	3040
-	lber	Thunderstorms	88	wxv → − 51 to 0 4 51 xv xv xv	18	Charles on the charles
	nun	Snow (trace or	31	101200000000000000000000000000000000000	45	
	rage	Rain, . 01 or more	09	110000001	125	
	Ave	Cloudy	- 83	2522010000528	129	1
		Partly cloudy	63	020522222000	118	-
		Clear	63	600666131166	118	
		Year	09	1886 1940 1877 1881 1941 1879 1893 1937 1937 1937 1937 1937	1938	
	pu	Direction highest velocity	09	ne. ne. ne. s.v. s.v. se.	or.	,
	‡ Wind	Highest relocity	09	00 01 01 01 01 01 01 01 01 01 01 01 01 0	73	
-	**	Prevailing direc-	09	8 8 W	. W.	T 47
		Average hourly velocity	09	4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	11.5	,
	hine	Ретсепт	20	4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	57	
	Sunshine	Total hours	90	143 166 212 227 284 270 270 229 197 1142 132	2561	
	ve ity int	8 p.m.	40	69 122 122 122 123 123 123 123 123 123 123	71	
	Relative humidity per cent	Noon—local time	72	62 62 62 63 63 63 63 63 63 63 63 63 63 63 63 63	61	
	- A E A	8 a. m.	40	21756021757584	73	
		Year	69	1897 1921 1892 1917 1917 1884 1898 1909	1921	
	n	Greatest snort series of strong stron	69	14.7 16.0 12.0 17.1 0 0 0 0 0 12.0 12.0 12.0 12.0 12.0 12	16.0	
	tatio	Ilalwone sarieva	11	11.6 7.4 7 7.4 7 12.0 0 0 17.1 1.7 7.5	42.8	
	Precipitation	Деяг	65	1881 1886 1877 1920 1920 1875 1933 1833 1836 1836	1921	
	Α,	Greatest in 24 stron	65	84.89.89.99.49.49.89.89.89.89.89.89.89.89.89.89.89.89.89	6.04	
		Zormal	20	0.000000000000000000000000000000000000	40.14	
		Year	62	1882 1934 1872 1874 1879 1879 1940 1914 1936 1938	1934	
		teswol etulosdA	62	111 888 11266 8486 111 111 111 111 111 111 111 111 111 1	-18	
	ture	Year	62	1876 1930 1921 1938 1925 1911 1917 1881 1881 1881 1931	1911	
	Temperature	Absolute highest	62	0.88.8.9.00.00.00.00.00.00.00.00.00.00.00.00.0	104	
	Tem	Zormal .	46	22.22 22.22 22.22 22.23 22.23 23.23 23.23 24.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23 25.23	49.6	The same of the sa
		Vlisb 928197A muminim	59	20.02 22.7.22 22.7.22 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20.03 20	41.6	
		Tlisb 928197A mumixsm	29	26.00.4.20.00.00.00.00.00.00.00.00.00.00.00.00.	57.6	-
		Month	L'gth of	record Jan. Par March. April. May. June. June. June. Sept October. Notober.	Year	-

‡ Anemometer, 62 feet above ground: October 1933 to December 1935, anemometer 360 feet, record not used. § Less than 1. \* Has occurred on previous date.

Monthly	and	Annual	Mean	Temperatures
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Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept	Oct.	Nov.	Dec.	An'l.
1840	20.0	30.8	34.4	48.4	55.6	66.2	71.8	70.3	59. 9	49.5	36.6	24.7	47.4
1841	27.9	22.3	33.1	41.1	53.2	67.4	60.8	68.5	62.3	44.6	36.4	30.0	46.4
1842	27.2	31.6	37.4	44.4	51.7	62.6	72.7	67.5	58.2	47.9	34.8	23.5	46.6
1843	29.7	16.8	25.4	43.5	54.5	64.2	69.2	69.9	60.6	47.5	34.3	26.9	45.2
1844	15.4	24.6	33.8	48.4	57.4	65.1	68.2	67.8	64.0	45.5	34.3	27.0	46.0
1845	27.2	27.6	36.2	46.3	56.6	68. I	72.1	71.3	60.2	51.8	44.3	25.6	48.9
1846	27.4	21.3	38.2	49.5	55.8	65.0	71.6	70.2	66.7	51.2	43.2	27.4	49.0
1847	26.4	25.9	30.8	42.0	53 · 4	64.7	73.0	68.1	61.0	47.7	44·I	34.8	47 . 7
1848	29.1	24.7	32.2	45.5	57.8	64.8	70.2	69.6	58.6	49.8	36.2	34.4	47.7
1849	21.0	18.4	35.8	43.5	52.5	67.7	71.6	69.2	60.0	49.2	45.0	28.9	46.9
1850	27.2	29.4	32.6	42.4	51.4	67.2	71.6	67.0	61.0	51.4	41.0	25.2	47.3
1851	25.5	29.9	36.2	44.5	55.5	64.8	71.4	68.0	61.1	52.9	34.8	22.9	47.3
1852	20.8	27.4	32.9	41.0	56.8	67.4	72.4	66.6	62.1	50.4	38.3	35.0	47.6
1853	25.8	29.2	35.8	45. I	56.4	66.8	70.6	67.5	61.2	47.8	39.6	26.4	47.7
1854 1855	23.9	23.5	32.4	42.3	58.7	65.6	74.4	67.3	61.5	52.5 51.5	41.2	24.4	47.4
1856	16.8	20.9	27.0	44.I 44.0	53.4	68.1	72.7	67.2	63.0	51.1	40.0 38.7		47 - 1
1857	15.2	33.6	32.9	41.8	54.7	63.4	71.6	68.2	62.0	51.3	41.3	24.0 33.2	45.5
1858	30.9	22.2	31.6	45.2	52.0	67.8	69.9	66.6	61.8	53.0	35.3	28.0	47.1
1859	25.4	28.5	38.6	42.9	53.1	64.2	69.7	68.0	58.8	46.5	42.0	24.4	47.3
860	27.7	25.8	38.4	44.2	56.I	65.4	68. 1	69.5	59.7	50.8	43.4	26.6	48.0
861	23.0	32.6	35.0	44.3	54.5	65.9	71.9	67.6	62.0	54.2	38.4	30.6	48.3
862	22.9	22.7	32.7	44.0	58.3	63.6	69.3	70.1	60.1	53.0	40.0	27.6	47.0
863	28.8	25. I	27.2	44.2	59.1	65.3	73.2	73.2	60.3	51.9	42.3	25.7	48.0
864	25.0	27.4	34.4	42.I	56.4	67.8	73.6	73.3	60.1	47.8	39.6	27.4	47.9
865	16.8	24.2	37.9	49.6	58.1	73.I	73 - 4	71.1	66.7	48.2	40.2	29.6	49.1
866	22.4	27.9	32.8	47.8	53 - 4	66.I	74.4	65.5	62.0	49.6	41.6	27.2	47.6
867	18.6	32.2	30.8	44.7	53.I	66.9	69.2	70.4	60.0	50.9	38.7	23.1	46.6
868	22.0	20. I	32.3	42.I	50.8	64.2	73.6	69.7	59.9	46.4	36.5	25.6	45.3
869	27.9	28.9	26.6	43.6	54.0	64.2	70.8	67.6	62.3	48.7	36.4	28.4	46.6
870	32.7	24.5	30.0	46.6	57.6	68.5	72.9	71.8	62.7	53.3	41.1	32.6	49.5
M'ns.	24.5	25.8	33.2	44.5	55.2	66.1	71.5	68.9	61.3	49.9	39.3	27.7	47.3

These temperature records were made at the Astronomical Observatory of Harvard College, which is located on Concord Avenue and Bond Street, Cambridge, Mass., about three miles from the Weather Bureau station in Boston, Mass.

### MISCELLANEOUS DATA FOR 1942.

Barometric Pressure (reduced to sea level).—Mean, 29.98 inches, 1015.2 millibars; highest, 30.90 inches, 1046.4 millibars; December 27; lowest, 28.49 inches, 964.8 millibars, Dec. 2.

Temperature.—Greatest monthly range, 70°, December; least monthly range, 35°, July. Highest mean temperature of three consecutive days, 81°, August 21-23; lowest mean temperature of three consecutive days, 2°, December 19-21.

Precipitation.—Longest period without precipitation, 12 days, April 22-May 3; longest period with precipitation, 8 days, June 14-21. Greatest amount in 24 consecutive hours, 1.81 inches, June 19-20. Maximum amount in 5 minutes, 0.31 inch, June 19; 10 minutes, 0.53 inch, June 19; 15 minutes, 0.70 inch, June 19; 30 minutes, 0.83 inch, June 19; 1 hour, 1.21 inch, June 19.

Frost.—Last killing frost in spring, April 14. First killing frost in autumn, September 29.

Snow.—Greatest snowfall in 24 hours, 5.5 inches, February 5-6. Greatest depth of snow on ground, 5.0 inches, January 10. Last snow in spring occurred on April 11; first in autumn occurred on November 3.

Thunderstorms.—First thunderstorm occurred on March 9; last thunderstorm occurred on December 2.

(30)

## Monthly and Annual Mean Temperatures

1872         27           1873         25           1874         30           1875         20           1876         24           1877         24           1887         24           1888         24           1881         25           1882         26           1883         24           1884         25           1885         27           1886         25           1887         25           1889         32           1891         31           1892         28           1893         28           1894         30           1895         25           1896         26           1901         27           1902         26           1903         26           1904         21           1905         25           1906         35           1907         30           1911         31           1912         21           1913         39 </th <th>7.4 26.0.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 2.1 22.00 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3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3.5   3	7.4 3.4 3.4 3.4 3.4 3.4 3.5 3.4 3.5 3.4 3.5 3.4 3.5 3.4 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5	3.4 4 9 6 4 9 9 9 9 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1887.     25       1886.     20       1889.     35       1890.     32       1891.     31       1892.     28       1893.     20       1894.     30       1895.     28       1896.     24       1897.     28       1898.     29       1900.     30       1901.     27       1903.     26       1904.     21       1905.     25       1906.     35       1907.     27       1908.     31       1910.     32       1911.     31       1912.     21       1913.     39       1914.     28       1915.     33       1916.     33       1917.     30       1918.     21       1919.     33       1921.     32       1921.     32       1922.     27       1923.     27       1924.     31       1925.     27       1924.     31	55.0 26 20.1 22 20.5.8 26 21.4 33 21.4 33 21.4 33 21.4 33 21.4 33 21.4 33 21.4 33 21.6 22 21.4 33 21.6 22 21.6 22 2	8.7 33 8.6.0 33 3.2 33 3.2.0 33 3.3.0 33	1.5 2.2 2.2 4.9 3.6 2.9 4.2 2.8 4.0 4.1 2.0 4.0 2.3 4.4 4.0 2.3 4.4 4.0 2.4 4.0 2.4 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	44.2 42.6 47.8 48.0 48.4 44.4 44.0 47.2 49.0 43.8 48.6 43.5 44.6 46.8 47.2 44.6 46.8	59.6 53.0 50.3 57.6 55.8 55.9 56.3 57.6 60.3 57.6 60.3 55.8 57.6 60.3 55.8 57.6 60.3 55.8 57.6 60.3 55.8 57.6 60.3 55.8 57.6 60.3 57.6 60.3 57.6 60.3 57.6 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3	65.2 66.2 69.2 65.0 69.6 68.8 66.8 66.8 70.0 68.6 65.3 66.3 59.8 64.0 65.4 65.4	74.6 68.8 69.0 71.0 69.0 73.0 71.8 71.8 71.8 72.6 73.8 71.4 73.2 70.1	67.6 70.2 67.4 68.9 70.0 70.2 69.6 68.0 71.0 70.7 69.6 68.8 71.1 70.7 67.6 65.0 68.7 68.6	59.8 59.8 62.9 66.7 62.5 60.0 65.7 62.2 63.1 62.0 65.4 62.5 62.5 62.6 62.5	51.5 47.8 48.5 51.6 52.7 54.8 54.0 50.2 54.4 54.5 54.6 53.6 53.6 53.9 553.6	42.2 43.8 41.8 41.4 41.2 42.2 45.4 46.5 41.4 42.0 42.1 44.6 37.2 40.0 38.2 41.6 41.7	32.4 34.6 38.0 26.0 40.4 29.9 30.4 32.2 35.6 30.4 34.0 36.2 34.4 32.4 28.5 29.0 25.8 29.0	40.5 47.3 49.1 50.4 49.4 47.9 49.8 49.2 49.9 50.8 49.6 49.6 49.4 47.1 49.1 50.0 48.7
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1893     20       1894     30       1895     28       1895     24       1897     24       1897     28       1898     29       1900     30       1901     26       1903     26       1904     21       1905     25       1906     37       1908     31       1909     30       1910     32       1911     31       1912     21       1913     39       194     33       196     33       1916     33       1917     30       1918     21       1921     31       1922     27       1924     37       1924     37       1924     37       1924     37       1925     37       1924     37	10.1 26.8.8 2.8.8.4 36.8.4 36.8.7 3.8.8.7 3.8.9.0 26.7.6 26.6.6 26.6.8 3.8.1.6 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0 22.7.0	6.6 4.6 3.4 4.6 3.8 7.7 3.9 7.9 3.9 3.9 3.4 4.2 3.1 4.4 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4	22.8 22.5 44.6 44.6 44.0 44.6 44.6 44.6 44.6 47.7 44.6 47.7 47.7	44.4 47.0 46.0 47.2 49.0 43.8 48.1 48.6 43.5 48.4 47.8 44.6 46.8 47.2 43.4 46.8	57.6 60.2 60.3 57.6 55.8 57.6 58.5 57.6 58.5 57.6 58.5 57.6 58.5	64.8 68.8 66.8 66.1 62.3 65.8 65.6 68.2 64.3 59.8 64.0 65.4 65.1	73.7 69.3 71.8 71.6 71.8 72.6 73.4 67.8 71.4 71.4 73.2 70.1 72.4	69.6 68.0 71.0 70.7 69.6 73.1 68.8 71.1 70.7 67.6 65.0 68.7 68.6 72.0	60.0 64.8 65.7 62.2 63.1 66.2 62.0 65.0 65.4 62.6 64.4 62.5 62.0 65.0	54.8 54.0 49.6 50.2 54.4 54.2 54.5 56.6 53.6 53.9 50.6 53.6	42.2 38.2 45.4 46.5 41.4 42.0 42.1 44.6 37.2 46.2 40.0 38.2 41.6 41.7	30.4 32.2 35.6 30.4 34.0 32.0 36.2 34.4 32.4 28.5 29.0 25.8 35.1 29.1	47.9 50.3 49.8 49.2 49.9 50.8 50.2 50.8 49.6 49.4 47.1 50.0 48.7
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1990	28.7 3:29.0 26.00.0 29.29.0 29.29.29.29.29.29.29.29.29.29.29.29.29.2	22.8 4:66.8 3:44.2 3:44.2 3:44.2 3:44.2 3:44.2 3:44.2 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45.6 3:45	2.8 4.0 44.0 66.2 3.4 4.4 4.6 7.2 4.7.9 8.6 6.8	43.8 48.1 48.6 43.5 48.4 47.8 44.6 46.8 47.2 43.4 46.8	55.8 57.8 55.2 54.3 57.6 58.5 60.8 57.6 58.0 52.4 59.0	70.0 68.6 68.2 64.3 59.8 64.0 65.2 66.4 65.1	72.6 73.8 73.4 67.8 71.4 71.4 73.2 70.1 72.4	73.1 68.8 71.1 70.7 67.6 65.0 68.7 68.6 72.0	62.0 65.0 65.4 62.6 64.4 62.5 62.0 65.0	54.2 54.5 56.6 54.4 53.6 53.9 50.6 53.6	42.0 42.1 44.6 37.2 46.2 40.0 38.2 41.6 41.7	32.0 36.2 34.4 32.4 28.5 29.0 25.8 35.1 29.1	50.2 50.8 49.0 49.6 49.4 47.1 49.1 50.0 48.7
1990	29.0 26 20.0 26 27.6 2.6 26.6 26 26.6 26 27.0 27.0 26 27.0 27.0 26 27.0 27.0 26 27.0	30.8 3.4 3.4 4.2 3.6 3.4 3.4 3.6 3.4 3.6 3.6 3.6 3.9 5.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	4.0 6.2 3.4 4.4 4.6 7.2 7.2 7.9 8.6 6.8	48.6 43.5 48.4 47.8 44.6 46.8 47.2 43.4 46.8	57.8 55.2 54.3 57.6 58.5 60.8 57.6 58.0 52.4 59.0	70.0 68.6 68.2 64.3 59.8 64.0 65.2 66.4 65.1	72.6 73.8 73.4 67.8 71.4 71.4 73.2 70.1 72.4	68.8 71.1 70.7 67.6 65.0 68.7 68.6 72.0	62.0 65.0 65.4 62.6 64.4 62.5 62.0 65.0	54.5 56.6 54.4 53.6 53.9 50.6 53.6	42.I 44.6 37.2 46.2 40.0 38.2 41.6 41.7	34·4 32·4 28·5 29·0 25·8 35·1 29·1	50.2 50.8 49.0 49.6 49.4 47.1 49.1 50.0 48.7
1900 30 1901 27 1902 26 1903 26 1903 26 1904 27 1905 25 1906 35 1907 27 1908 31 1909 30 1911 31 1912 21 1913 39 1914 28 1915 33 1916 33 1916 33 1916 33 1917 30 1918 21 1919 33 1920 21 1921 32 1922 27 1924 37	20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	99.3 3.44.2 3.68.8 4.4.2.6 3.44.3 3.9.7 3.11.6 3.41.6 3.66.8 3.62.6 3.9.5 4.9.5 4.9.5	3.4 4.4 4.6 4.6 7.2 7.9 8.6 6.8	48.6 43.5 48.4 47.8 44.6 46.8 47.2 43.4 46.8	55·2 54·3 57·6 58·5 60·8 57·6 58·0 52·4 59·0	68.6 68.2 64.3 59.8 64.0 65.2 66.4 65.1	73.8 73.4 67.8 71.4 71.4 73.2 70.1 72.4	71.1 70.7 67.6 65.0 68.7 68.6 72.0	65.0 65.4 62.6 64.4 62.5 62.0	56.6 54.4 53.6 53.9 50.6 53.6	44.6 37.2 46.2 40.0 38.2 41.6 41.7	34·4 32·4 28·5 29·0 25·8 35·1 29·1	50.8 49.0 49.6 49.4 47.1 49.1 50.0 48.7
1901   27   1902   26   1903   26   1904   21   1905   25   1906   35   1907   27   1908   31   1909   30   1910   32   1911   31   1912   21   1913   33   1916   33   1916   33   1916   33   1916   31   1918   21   1919   33   1918   21   1919   33   1918   21   1919   33   1918   21   1919   32   1921   32   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   31   1924   32   1924   31   1924   32   1924   31   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924   32   1924	27.6 26.6 26.8 3 21.6 25.1 25.1 25.1 25.1 25.1 25.1 25.1 25.1	24.2 30 28.8 4 31.4 4 22.6 3 23.4 3 29.7 3 21.6 3 26.8 3 29.5 4	6.2 4 3.4 4 4.4 4 4.6 4 7.2 4 7.9 4 8.6 8	43.5 48.4 47.8 44.6 46.8 47.2 43.4 46.8	54.3 57.6 58.5 60.8 57.6 58.0 52.4 59.0	68.2 64.3 59.8 64.0 65.2 66.4 65.1	73.4 67.8 71.4 71.4 73.2 70.1 72.4	70.7 67.6 65.0 68.7 68.6 72.0	65.4 62.6 64.4 62.5 62.0 65.0	54·4 53·6 53·9 50·6 53.6	37.2 46.2 40.0 38.2 41.6 41.7	32·4 28·5 29·0 25·8 35·1 29·1	49.0 49.6 49.4 47.1 49.1 50.0 48.7
1902 26 1904 21 1905 25 1906 35 1907 27 1908 30 1910 32 1911 31 1912 21 1913 39 1916 33 1916 33 1916 33 1918 21 1919 33 1918 21 1919 33 1920 21 1921 32 1922 27 1923 27 1924 37	26.6 26.8 3 21.6 2: 25.1 2: 27.0 2: 31.0 2: 30.3 3: 32.0 2: 31.8 2:	31.4 4.2.6 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4	4.4 4.6 4.6 7.2 2.4 7.9 8.6 6.8	47.8 44.6 46.8 47.2 43.4 46.8	57.6 58.5 60.8 57.6 58.0 52.4 59.0	64.0 65.2 66.4 65.1	71.4 71.4 73.2 70.1 72.4	67.6 65.0 68.7 68.6 72.0	62.6 64.4 62.5 62.0 65.0	53.9 50.6 53.6	46.2 40.0 38.2 41.6 41.7	29.0 25.8 35.1 29.1	49.4 47.1 49.1 50.0 48.7
1904 21 1905 25 1906 35 1907 27 1908 31 1909 30 1910 32 1911 31 1912 21 1913 39 1914 28 1915 33 1916 33 1916 33 1917 30 1918 21 1919 31 1920 21 1921 32 1922 27	21.6 2: 25.1 2: 25.7 2: 27.0 2: 31.0 2: 30.3 3: 32.0 2: 31.8 2:	2.6 3 23.4 3 29.7 3 21.6 3 26.8 3 2.6 3 29.5 4	4.6 7.2 2.4 7.9 8.6 6.8	44.6 46.8 47.2 43.4 46.8	57.6 58.0 52.4 59.0	64.0 65.2 66.4 65.1	73.2 70.1 72.4	68.7 68.6 72.0	62.0	50.6	38.2 41.6 41.7	25.8 35.1 29.1	47.I 49.I 50.0 48.7
1905 25 1906 35 1907 27 1908 31 1909 32 1911 31 1912 21 1913 39 1914 28 1915 33 1916 33 1916 33 1918 21 1919 33 1920 21 1921 32 1922 27 1924 37	25. I 20 35. 7 20 27. 0 2 31. 0 26 30. 3 33 32. 0 20 31. 8 2	23.4 3 29.7 3 21.6 3 26.8 3 2.6 3 29.5 4	2.4 7.9 8.6 6.8	47.2 43.4 46.8	57.6 58.0 52.4 59.0	65.2 66.4 65.1	73.2 70.1 72.4	72.0	65.0	53.6	41.6	35.I 29.I	49.1 50.0 48.7
1906 35 1907 27 1908 31 1909 30 1910 32 1911 31 1912 21 1913 39 1914 28 1915 33 1916 33 1916 33 1918 21 1919 32 1920 21 1921 32 1921 32 1921 32 1924 31	35.7 20 27.0 20 31.0 20 30.3 33 32.0 20 31.8 27	29.7 3 21.6 3 26.8 3 2.6 3 2.6 3	2.4 7.9 8.6 6.8	47.2 43.4 46.8	58.0 52.4 59.0	66.4	70.I 72.4	72.0	65.0	52.5	41.7	29.1	50.0
1908   27   1908   31   1909   30   1910   32   1911   31   1912   21   1913   38   1915   33   1916   33   1916   33   1918   21   1919   33   1920   21   1921   32   1922   27   1923   27   1924   37   1924   37   1924   37   1924   37   1924   37	7.0 2: 31.0 26 30.3 3: 32.0 26 31.8 2:	21.6 3 6.8 3 2.6 3 29.5 4	7.9 8.6 6.8	43.4	52.4 59.0	65.1	72.4						48.7
1909 30 1910 32 1911 31 1912 21 1913 39 1914 28 1915 33 1916 33 1916 33 1920 21 1921 32 1922 27 1923 27 1924 37 1924 37	30.3 33 32.0 20 31.8 2	2.6 3	6.8		59.0	60.8		09.0	64.4		43.2	0, ~	ET C
1911 31 1911 31 1912 21 1913 39 1914 39 1915 33 1916 33 1918 21 1919 33 1920 21 1921 32 1922 27 1923 27 1924 37 1924 37	1.8 2	9.5 4				09.0	74.I 71.5	69.4	05.8	55.4	43.6 46.4	33·3 30.8	31.2
1911 31 1912 21 1913 39 1914 28 1915 33 1916 33 1917 30 1918 21 1929 32 1920 21 1921 32 1922 27 1923 27 1924 31	1.8 2		2.0	47.8	55.8 57.6	69.4	71.5	69.4 68.8	62.6	52.8 56.0	40.4	30.8	50.5
1912 21 1913 39 1914 28 1915 33 1916 33 1917 30 1918 21 1919 33 1920 21 1921 32 1922 27 1923 27 1924 31 1924 31		7.0 3	5.4	46.1	62.4	65.6	74·9 77·1	69.0	62.6	52.6	41.8	27·5 39·4	50.9
1913 39 1914 28 1915 33 1916 30 1918 21 1919 33 1920 21 1921 32 1922 27 1923 27 1924 31 1924 31	1.4 2	7.7 3	6.0	47.4	58.6	65.6 68.0	73.2	69.0	63.7	57 • 4	45.6	38.5	50.5
1915 33 1916 33 1917 30 1918 21 1919 33 1920 27 1921 32 1922 27 1923 27 1924 31 1925 27	9.2 2	7.7 4	2.4	47 · 4 48 · 0	55.2	67.5	73.8 68.6	70.8	62.0	56.4	45.6 46.5	37.8	52.3
1916 33 1017 30 1918 21 1919 33 1920 21 1921 32 1922 27 1923 27 1924 31 1925 27	8.7 2	4.3 3	6.7	45.3	60.4	67.3		70.4	64.6	57.0	42.7	30.4	49.7
1017 30 1918 21 1919 33 1920 21 1921 32 1922 27 1923 27 1924 31 1925 27	3.0 3	3.2 3		50.8 45.6	56.6 58.6	63.9	70.1 72.6	71.8	66.8	55.7	45.4	34.2	51.2
1918 21 1919 33 1920 21 1921 32 1922 27 1923 27 1924 31 1925 27	0.2 2			44.0	50.7	65.8	73.3	72.8	65.0	55.5	39.4	23.7	49.7
1920 21 1921 32 1922 27 1923 27 1924 31 1925 27	21.0   2	26.9   3	6.7	47.8	63.3	63.9	71.0	70.4	61.2	56.2	45.0	34 7	49.8
1921 32 1922 27 1923 27 1924 31 1925 27		32.6 4		46.9	59.1	67.2	74.0	68.8	63.9	55. I	42.8	34 7 28.7	51.1
1922 27 1923 27 1924 31 1925 27	21.0 2	7.6 3	9.2 6.2	45.0	54·6 58·0	65.8	72.4	72.0	05.2	59.8	41.7	35.6	50.0
1923 27 1924 31 1925 27	7.2 3			51.8 48.7	61.4	68. <sub>2</sub> 68.6	73.2 72.0	69.8	68.5 65.2	55.2	41.6	31.4	52·4 51·3
1924 31	7.0 2	3.4 3	3.9	48.2	57.6		70.0	69.4	64.2	55·I 55·5	44.6	40.4	50.3
1925 27		3.4 3	7.4	47.2	56.2	66.6	73.8	69.4 71.8	62.2	54.6	44.6	31.1	50.3
		8-0 4	3.0	49.8	57 • 4	70.9	72.4	71.2	64.0	49.3	43.6	33.6 28.6	51.7
1926 31	30.6 3	7.8 3	1.6	44.8 48.3 46.8	56.0	64.3	70.5	70.4	62.4	53.4	44.2	28.6 36.0	49.0
			7.0	46.8	55.4	65.0	72.2 73.2	73.6	65.0	57·9 56·6	44.8	38.5	51.8
		1.7 4	1.4	47.1	55·4 61.0	68.4	72.6	73.6 69.3	65.2	53.2	44.7	32.6	51.4
1930 31	31.8   3.	34 · I 3	8.3	47.6	59.4	72.4	72.6	70.5	69.4	53.0 58.5	45.0	33.2	52.3
1931 30	30.6 3	30.6		50.2	60.3	67.2	74.0	72.2	66.9	58.5	49.4	36.6	53.0
1932 38 1933 37		30.6 3 3.7 3	5.6	47.4	60.2 61.6	69.6	72.8	74.0	65.2	57.1	42.8	38. I 26.8	52.4 50.9
1933 3/	29.6 1	7.5 3	15. T .	48.0	60.6	66.9	73.2	71.8 67.3	65.8	52·7 49·6	45.6	28.4	48.9
1935 23	23.2 2	7.8 3	8.4	45.2	55 - 5	65.5	72.6	70.7	61.4	53.8	45.4	27.1	48.9
1936 28	28.2 2	22.8 4	1.8	45.2	60.6	66.2	71.1	69.7		54 • 4	39.5	35.0	49.7
TO27 27	37.4 3.	33.2 3	34.1	45.2	59.1	66.4	73.2	74.6	63.0	52.6	44.0	31.2	51.2
1938 28	28.0 3	30.6 3	33.2	48.7	55.8	65.6	71 8 72.3	73.6	62.2	56.0	46.4	34.0	51.1
		29.6	3. I	43.6	56.2	65.1	71.6	73.8 68.4	64.5	50.6	42.9	33.4	48.5
1941 25	25.2 2	29.4 3	33 - 4	51.6	59.8	68.2	71.4	70.6	66.0	55.9	48 0	34·3 35·2	51.2
1942 28	J L	-		49.7	66.8	67.4	71.1	70.7	64.6	55.8	43.5	28, 6	50.7
M'ns 28	25.2 2	27.0 4				66.6	72. I	70.2	63.7	F0 6	42.6	32.3	49.9
				46.5	57 • 3	00.0	/20.	70.2	03.7	53.6	42.0	2-0	12 2

Note.—Bold-face figures indicate highest and lowest monthly means.

## SEASONAL SNOWFALL.

Years	Oet.	Nov.	Dec.	Jan,	Feb.	Mar.	Apr.	May	Season
1871-2	0	т.	12.3	3.4	11.3	17.3	0	0	44.3
		0.3	23.7	11.6	8.3	5.2	T.	T.	49. I 96. 4
1872-3 1873-4 1874-5 1875-6 1876-7 1877-8 1878-9 1879-0 1880-1 1881-2 1882-3	0	7.5 T.	13.7 5.7	10.4	0.3	3·9 27·3	28.3 6.3	0	50.0
1875-6	0	T.	9.0	0.5	5.4 T.	3.0	6.3 T. T.	0	10,0
1877-8	T.	°.3 T.	0.8	14.3	12.6	15.5 T.	0	0	27.7
1878-9	0	0.3 6.0	1.2	18.2	11.9	7.8	4.0	0	43·4 54·2
1880-1	0	0.8	19.2 T.	20.5	9.0	3.1	4.2	0	56.8
1882-3	0	1.5	6.0	9.6	17.9	5.6	T	0	40.4 38.9
1883-4	0	T.	24.4	11.9	12.5	4·3 7·7	9.5 T.	0	66.0
1885-6	0.5	4.8	5.5 18.5	3.9	3.3	9·5 4·5	T.	0	24.3 36.0
1886-7	0	o.5 T. T.	18.5	16.0	9.6	11.5	15.0 T.	T.	73.0 41.2
1888-9	0	4.8 T.	6.5 T.	4.5	7·5 6·3	2,2	0	0	19.0
1800-1	0	T. T.	4.0	8.5	6.3	20.3	T.	0	39. I 59. 3
1891-2	T.	0	14.5 T.	12.0	11.5	20.0	0	0	43.5
1893-4	0	3.0	18.5	14.6	35.3	4.5 T.	7.9 8.5	0	67.3
1881-2 1882-3 1883-4 1883-4 1883-5 1885-6 1886-7 1887-8 1888-9 1889-0 1890-1 1891-2 1892-3 1893-4 1894-5 1895-6 1896-7 1907-8 1903-4 1904-5 1905-6 1906-7 1907-8 1906-7 1907-8 1906-9 1909-0 1910-1 1911-2 1911-2	0	6.7 T.	13.5	13.9	8.8	3.8	0.5	0	47.2
1895-0	0	2.2	5.2 8.6	9.5	9.5	3.3 6.0	0.2 T.	0	38.9
1897-8	0	8.1	7.8	16.3	30.2	6.0	2.2 T.	0	51.9 71.1
1899-0	T.	0.1	7.7 T.	8.3	9.0	9·3 7.6 T.	0	T.	25.0
1900-1	0	0.1	0.8	7.8	8.8	T. 7·5	T.	0	17.5 44.1
1902-3	T.	T.	22.8	4.2	14.7	0.3	1.	0	42.0
1903-4	T.	T.	10.6	35.7	16.5	8.9 3.6	T.4 T.	0	73.I 44.9
1905-6	0	Τ.	3.5	6.1	6.1	21.9	T.	0	37.6 67.9
1905-7	0	1.1	7.0	16.1	25·5 9·3	6.6	3.1	Т.	26.2
1908-9	T.	T. T.	3.5	11.2	2.3	3.1	0	0	20. I
1909-0	0	1.4	12.3	0.7	19.5	0.2 3.I	7.7	0	37.0 40.6
1910-1 1911-2 1912-3 1913-4 1914-5 1915-6 1916-7 1917-8 1918-9 1919-0 1920-1 1921-2	0	0.3	3·7 9·2	17.8	7.7	9.1	0.5	0	31.6
1913-4	0.4 T.	°.3 T.	0.9	10.3	20.6	0.5 5.2 T.	2.0	0	39.4
1914-5	Т.	T.	4·1 6.7	7.0	5.1	T.	6.1	0	79.2
1916-7	o	0.7	9.5	13.1	8.9	12.9	9.1	T.	54.2
1917-8	0	2.2 T.	7.0 8.4	13.8	5·7 6.2	12.8	4.2 T.	0	45.7
1919-0	0	0.2	2.9	24.8	32.5	11.0 T.	2.0 T.	T.	73 - 4
1921-2	0	1.6	5·5 4·4	3.6	23.2	10.1	3.3	0	34.1
1922-3	0	0.9 <b>T</b> .	14.7	28.0 8.5	14.3	10.6	3.3 T.	0	37.6 68.5 32.3
1924-5	0	0.5	0.2	20.7	10. 4 T.	7.4 T.	3.0 T.	0	21.4
1925-6	T.	°. 5 T. T.	0.5	7·4 16. I	27.6	2.8 0.6	T.	0	38.3
1927-8	o	0.5 1.4	24. 2 T	5. I	19. 2	6.5	0. 2 T.	0	60.3
1928-9	T.	3.0	4.6	13.5	9.5	0.6	o. 6 T.	0	45.5
1930-1	T.	0.1	7.7	11.7	14.0	7.3 5.8	1.	0	40.8
1931-2	0	T. T.	1.4 8.6	1.3	20.6	5. I	T. 5.0	0	24·2 40.6
1933-4	T.°	2.9 T.	15.6	0.8 26.7	32.9 13.1	10.5	5.0 T.	0	62.7
1935-6	0	1.0	0.3	12.7	12.6	2.9	T. T.	0	29·5 9·0
1920-1 1921-2 1922-3 1923-4 1924-5 1925-6 1926-7 1927-8 1928-9 1929-0 1930-1 1931-2 1932-3 1933-4 1933-5 1933-6 1935-6 1936-9 1936-9 1936-9 1936-9	0	4.4	0.7 4.6	2.0	T.	0.3	T.	0	9.0 45·7
1938-9	0	10.0	1.2	7.5	4.7	16.5	0.2	0	40.2
1939-0	T.	8.5	6.5	4.6	23 8	0.3	1.5	T.	37·7 47.8
1941-2	Ť.	T.	4·5 0. 2 6. 8	8.2	6, 2	7.9	1.5	0	24.0
		T.							
Means	T.	1.7	7-5	11.6	12.5	7.4	2.1	T.	42.8
					1				

## Hours of Sunshine

								,				,	
Year		ė	i.	į.	27	ne	<u>&gt;</u>	<b>5.0</b>	Sept.	ŗ.	, ,	ပ	Ann'l
1 ear	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sel	Oct.	Nov.	Dec.	An
		1										1	1
1893		161	221	212	219	222	289	241	231	219	184	130	
1894	135	159	222	208	260	286	340	275	216	165	143	148	2556
1895	143	218	215	202	287	254	253	289	255	208	110	123	2557
1896	155	167	208	246	263	260	235	262	191	132	110	184	2412
1897	136	159	165	227	196	258	220	270	258	230	119	132	2370
1898	164	142	194	174	198	234	252	242	266	171	126	153	2316
1899	185	160	163	292	292	323	316	210	216	150	164	180	2652
1900	154	146	237	234	232 212	311	320 266	261 223	225 218	146 236	120	142	2527 2349
1901	134 152	208 170	158 187	106 175	295	332 295	253	304	190	196	134 120	121 142	2479
1902	149	174	203	261	347	183	300	249	289	212	180	168	2715
1904	151	164	197	211	281	249	277	262	229	184	141	107	2452
1905	150	188	224	261	298	268	319	271	191	224	179	127	2700
1906	144	192	223	254	307	293	289	292	271	173	130	81	2649
1907	91	141	192	204	211	284	336	312	159	199	103	129	2363
1908	171	186	196	254	267	366	314	255	243	206	166	138	2760
1909	102	155	223	237	283	361	374	314	213	225	119	157	2763
1910	123	171	259 238	236 300	233 329	259 306	338 228	282 281	208 241	210 175	101	127 135	2547 2764
1911	110 136	141 202	238	234	281	390	339	301	224	226	170	160	2902
1912	141	203	193	236	272	353	335	287	224	90	150	140	2623
1914	106	192	166	217	252	279	254	201	274	209	148	122	2419
1915	134	166	292	220	299	291	275	256	275	200	160	138	2705
1916	149	144	228	206	274	278	260	306	275	232	160	167	2678
1917	118	171	224	204	214	257	306	307	267	186	193	112	2558
1918	165	170	248	250	311	304	271	264	207	165	143	110	2608
1919	134	213	173	185	276	330	301	260	193	134	125	126	2451
1920	147	143 159	237 210	183	252 288	238 332	343 274	246 339	226 269	228 224	88 94	152 132	2484 2659
1921	163 172	114	178	174 248	332	251	294	224	252	214	139	96	2514
1923	116	160	193	241	291	281	255	286	2:22	200	145	118	2512
1924	162	199	234	224	225	289	347	275	222	251	171	122	2723
1925	141	156	210	261	274	311	301	294	209	145	160	134	2596
1926	106	126	211	236	283	270	268	200	215	196	160	130	2401
1927	133	118	255	343	218	306	241	233	266	253	132	152	2651
1928	191	201	247	279	262	249	298	242	193	230	105	171	2669
1929	171	162	211	182	$\frac{326}{271}$	346	367	296	205 275	193	136	118	2712 2724
1930	113 208	181 170	236 193	293 275	284	306 268	274 244	294 240	243	195 223	155 149	130 125	2622
1931	96	137	222	257	338	291	343	339	268	174	165	150	2780
1933	175	207	195	197	282	289	291	239	200	218	149	95	2537
1934	118	183	237	278	311	287	286	241	120	187	130	140	2518
1935	142	132	225	162	254	207	248	267	163	251	90	126	2265
1936	175	167	204	192	320	289	369	254	212	198	148	115	2643
1937	121	163	236	208	244	244	309	257	259	162	141	150	2492
1938	121	114	176	233	279	302	242	326	213	178	160	126	2470
1939	119 174	135 153	180 214	177 197	276 221	295 275	325 293	260 305	230 224	150 213	170 96	108 93	2425 2459
1940	127	170	217	257	262	259	243	294	290	205	217	125	2666
1941	181	188	183	214	160	208	262	281	214	215	129	110	2346
		_	-										
Aver'.	142	166	213	227	271	286	292	270	229	197	143	134	2570
Posble	295	†297	371	401	452	455	461	429	374	343	295	284	4457
		1	L										

<sup>†</sup> Leap years not considered.

## EXTREMES OF BAROMETRIC PRESSURE, 1872-1942

Sea Level Pressure

	PRESSURE										
MONTH	Aver- age	Maxi- mum	Year	Day	Mini- mum	Year	Day				
January	30,05	31,00	1920	31	28, 67	1913	2				
February	30.00	31.03	1920	î	28, 69	1895	3 8				
March	29.99	30, 96	1904	5	28, 45	1932	7				
April	29.97	30.72	1911	12	28.86	1907	9 3				
May	29.98	30. 63	1936	22	29.11	1929	3				
June	29. 97	30.57	1884	15	29. 26	1923	27				
July	29. 95	30. 51	1892	7	29.21	1932	2				
August	30.01	30.48	1934	31	29.26	1924	26				
September	30.08	30. 65	1888	7	29.09	1938	21				
October		30.75	1879	3	28. 97	1925	25				
November	30.02	30.87	1932	28	28.73	1873	18				
December	30. 02	30.96	1887	1	28.49	1942	2				
Average or Extremes	30.01	31.03	1920	Feb. 1	28. 45	1932	Mar. 7				

## Maximum Amounts of Precipitation

	5 m	in's	10 m	in's	15 m	in's	30 m	in's	ı ho	ur	2 ho	urs	24 hc	urs
Month	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.
Jan Febr. Mar. April May June July Aug. Sept. Oct. Nov Dec.	.20 .10 .15 .13 .55 .42 .50 .55 .25 .34 .21	1942 *1926 1913 1936 1932 1925 1927 1908 1902 1928 1925 1937	. 14 . 23 . 19 . 62 . 72 . 67 . 91 . 43 . 54	1936 *1918 1913 1921 1932 1905 1916 1908 1927 1928 1932 1937	.20 .26 .24 .63 .75	1936 1920 1913 1920 1932 1905 1916 1908 1927 1928 1927	.33 .39 .31 .65	1936 1920 1913 1920 1932 1941 1916 1908 1911 1906 1932 1937	. 49 . 54 . 50 . 69 1. 21 1. 62 1. 80 1. 10 1. 58	1919 1920 *1932 1931 1926 1942 1921 1901 1904 1906 1932 1937	1.03 .78 .94 1.80 2.45 2.27 1.74 1.74 .94	1919 1920 1932 *1931 1926 1942 1915 1917 1904 1906 1927 1937	4.45 3.04 3.19 3.31 5.35 6.04 4.99 5.63 4.92 5.43	1881 1886 1877 1921 1920 1875 1921 1879 1933 1895 1876
High- est	.55	*1932	.91	1908	1. 12	1908	1.45	1908	1.80	1901	2. 45	1915	6.04	1921

## MONTHLY AND ANNUAL PRECIPITATION.

		:	l i	.:	i è	e	1 10	l bio	ا نب ا		1 .		
Year.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov	Dec.	An'l.
					(	,	1	1	1	1	ſ	1	1
1818	2.64	3.49	4.05	6.15	5.96	3.47	4.08	0.46	7.81	2.11	1.91	0.86	42.99
1819	0.70	2.27	6.21	3.74	3.06	3.56	2,02	4.38	5.29	1.40	1.22	1.63	35.48
1820	3.12	4 - 25	4.90	0.45	5.08	3.42	4.19	5.15	2.43	5.39	3.00	2.80	44.18
1821	1.41	4.42	2.53	4.90 2.99	0.78	2.79	2.35	1.58	4.73	2.29	3.12	1.93	36.89 27.20
1822	3.00	2.34 4.57	7.72	2.99	6.40	3·54 0·93	4·32 5·74	1.98	1.95	2·53 3·95	1.92	6.93	47.30
1824	3.95	5.99	1.81	4.72	1.43	1.60	0.88	3.68	6.43	1.01	1.72	2.80	36.02
1825	2.79	3.43	4.70	0.37	1.36	4.77	1.24	5.62	2.66	3.21	0.81	4.38	35 • 34
1826	2.55	1.48	3.81	1.50	1.36 0.25	3.85	2.90	5.62 12.10	3.03	3.80	2.31	3.56	41.14
1827	3.92	2.97	2.51	4.75	5.34	2.56	2.59	4.88	4.81	5.28	5.71	3.59 0.26	48.91
1828	2.15	2.79	1.84	2.00	4.67	1.59	4.58	0.37	3.82	2.79	5.55		32.41
1829	4.93	5.62	4.30	3.45	2.71	1.64	6.98	4.95 2.64	2.62	1.65	5.74	2,26	46.85
1831	2.36	3.68	3.51	6.97	3.65	3.46	4.90 5.53	5.57	3.83	2.38	5·32 3.20	2.93	42.95
1832	4.47	3.74	2.65	5.56	7.27	0.50	3.41	6.14	2.07	2.46	3.57	4.85	46.69
1833	2.96	2.53	2.71	2.30	1.03	3.23	2.01	0.82	2.88	6.00	5.53	5.86	37.86
1834	1.39	1.13	0.96	2.93	6.33	3.09	7.71	2.47	3.71	4.62	2.90	2.36	39.60
1835	3.25	1.37	4.27	4.54	2.07	2.74	9.07	2.89	1.31	1.87	2.08	2.40	37.86
1836.		3.57	2.90	1.58	1.85	4.33	2.12	1.53	0.54	4.04	5.43	4.13	40.86
1837	4.10	4.14	3.02	3.07	5.79	2.98	1.80	1.67	0.56	1.58	2.35	0.80	33.52
1838	3.07	2.77 3.11	3.09	7.73	3.32	2.55	3.32	4.26	9.87	5.02 2.50	3.95	6.35	42.52
1840	3.12	2.57	4.55	4.60	2.23	2.78	2.93	4.00	2.12	4.48	11.63	4.15	49.16
1841	6.00	1.60	3.50	8.82	1.90	1.95	2.10	4.20	2.86	3.80	4.55	5.77	47.05
1842	0.80	3.20		3.50	2.90	5.30	1.82	4.44	3.25	0.80	4.45	5.30	39.11
1843	2,20	6.08	3.35	3.88	1.60	4 61	2.15	6.88	0.98	4.82	3.40	3.92	46.69
1844	3.68	2.42	6.00	0.20	2.72	1.40	2.17	2.62	3.53	5.80	3.15	3.85	37.54
1845	4.58 3.12	4.25	3.83	1.23	2.82	2.05	3.28	1.82	2.23	4.00	10.25	5.98	46.32
1847	3.28	2.95 4.70	2.73	1.23	2.03	4.09	2.51	6.45	6.64	1.35	4.17 5.12	4·5 <sup>2</sup> 3·95	29.95 46.93
1848	2.30	3.90	4.05	1.40	6.30	1.73	1.35	3.10	3.55	5.10	2.25	5.95	40.98
1849	0.35	1.15	7.35	0.90	3.10	1.45	0.85	6.25	1.25	8, 10	5.50	4.05	40.30
1850	4.59	2.52	5.32	4.82	6.63	2.77	2.70	5.30	7.15	2.10	3.32	6.76	53.98
1851	1.30 4.85	4.20	3.88	9.37	3.31	1.80	3.09	1.27	3.50	4 - 43	5.51	2.65	44.31
1852	4.85	2.85	4.45	10.18	1.95	2.35	3.28	7.63	1.65	2.19	3.47	3.09	47.94
1853 1854	2.44	5.30	2.84	3·78 6.63	5.63	0.30 2.47	3.64	9 40	3.80	3.92	4.43 6.80	3.95	48.86 45.71
1855	7.22	4.67	1.18	4.28	4.33 1.20	3.09	4.15	1.46	1.13	4.61	5.27	5.93	44.19
1856	5.32	0.80	1.33		7.10	2.90	4.02	II.II	4.90	2.70	3.33	4.28	52. 16
1857	5.36	2.45	3.09	4.37 10.83	5.57	2.02	5.53	7.18	2.56	4.50	2.52	5.26	56.87
1858	3.28	2.30	2.18	5.18	3.89	8.09	4.56	7.03	5.02	3.03	3.38	4.73	52.67
1859	5.93	4.05	7.64	3.36	3.63	7.89	1.58	4.72	4.40	3.28	3.75	6.47	56.70
1860	1.89 6.04	3.85	2.19	1.73	2.35	8.01 3.64	5.90 2.76	6.04	7.35	2.66 2.66	5.37	5.86	51.47 50.06
1862	8.30	3.57	7.48	1.97	2.97	6.78		4.20	5.61	4.85	4.90 8.32	2.35 3.01	61.06
1863	4.51	4.54	6.42	9.08	2.82	2.56	7.33 12.38	5.64	3.12	3.83	6.48	6.34	67.72
1864	3.87	1.43	11.75	4.72	3.31	1.47	1.90	4.17	2.60	4.80	4.00	5. 28	49.30
1865	4.47	5.08	4.83	2.57	6.90	2.83	4.26	1.42	0.62	6.21	4.46	4.18	47.83
1866	3.73 6.06	5.28	4.70	2.03	5.04	3.41	5.42	3.87	5.90	2.72	3.74	4.86	50.70
1867		6.55	6.12	2.52	4.11	2.74	4.76	10.78	0.44	6.76	2.32	2.48	55.64
1868	6.09	9.98	5.04	6.94	10.38 6.88	3.79	1.10	7.53	11.95 5.18	1.78 6.71	5.31	9.04	64.11
1870	4.03 8.16	7.03	8.74	8.42	2.58	4·44 7·59	3.30		0.67	6.80	3.74	3.62	59.73
1871	0.92	2.63	4.55	3.79	4.34	5.55	3.22	1.57 3.08	1.30	5.88	6.42	3.38	45.06
1872	2.11	2.31	4.05	1.31	3.29	4.84	4.00	10.68	6.04	4.85	3.66	3.09	50.23
1873	5.76	3.21	3.76	3.83	5.16	0.54	3.84	6.21	2.91	5.33	3.66 8.34	5.64	54.53
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## MONTHLY AND ANNUAL PRECIPITATION-Continued.

ear.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	An'l.
874 -	4.32	3.41	1.60	7.97	3.71	3.94	3.47	6.67	2.05	1.39	2.85	2.14	43.52
875	3.68	3.74	5.04	4.92	3.76	7.25	3·93 5·86	3.50	3.12	4.99	5.47	0.75	50.15
876	1.87	4·51 0·45	7.19	3.61	2.70	1.72		1.23	3.84	1.66	11.03	3.71	48.96
877	3·33 7.60		9.79	6.14	3.38	3.2I 2.28	2.27 4.58	4·49 7·66	0.60	<b>8.84</b> 6.76	9.62	6.76	51.49
878	2.79	4.40	3.90	6.58	0.97	6.24	3.09	6.71	3.47 1.84	0.91	2.97	4.22	65.53
880	3.72	4.11	3. 25	2.85	1.63	0.75	6.86	2.90	2.36	3.15	2.30	3.42	37.30
881	7.21	4.89	9.86	1.66	4.16	7.79	2.96	1.23	2.50	2.84	3.73	3.80	52.63
882	3.68	4.77	3.35	2.50	6.05	1.03	3.91	1.46	10.93	2.29	1.20	2.65	43.82
883	3.59	2.74	2.33	2.83	5.11	2.07	2.73	0.39	1.50	6.40	2.08	3.71	35.48
884	6.27 5.33	5.74 3.00	4.86	4.76 3.30	3·3 <sup>1</sup> 4·26	4.01 3.70	4.25 1.44	7.64	1.70	3. I7 5.7I	3.03	4.46	49.18
886	7.08	7.04	3.20	1.70	3.08	1.34	1.81	3.64	2.73	3.27	3.59	3.66	42.14
887	4.86	3.69	3.86	2,62	1.67	1.98	3.59	3.05	0.97	2.53	2,22	2.71	33.75
888	2.26	2.36	3.32	2.04	5.20	2.69	1.79	6.53	6.77	3.58	4.97	4.38	45.89
889	4.11	1.54	1.19	3.07	4.15	2.77	5.80	3.95	3.19	3.31	4.91	1.83	39.82
890	2.00	2.29 3.66	5.88 3.94	2.29 I.71	1.56	3.06	1.93 3.73	2.70 3.87	5.04	5.63	0.97	3.72 3.58	39.70
891	4.62	2.15	3.91	0.93	5.15	3.05	2.56	4.87	1.90	2.31	4.45	1,12	37.02
893	2.56	6.22	2.80	3.13	5.23	2.20	1.72	6.46	1.59	2.94	1.83	5.16	41.84
894	3.01	3.15	10.1	3.78	4.12	0.80	3.09	3.03	2.14	5.11	3.10	4.28	36.62
895	3.79	I.!I	2.72	3.65	2.71	1.73	2.98	3.24	1.53	6.19	8.07	2.45	40.17
896	2.25	3.94	5.41	1.56	1.68	2.71	2.90	2.15	6.40	3.15	3.70	1.70	37 - 55
897	3.16	2, 12 4, 81	2.79 1.82	3.17	4.00	4.46 1.60	4.22	3.95 6.38	2.38	0.4I 7.17	6.19	3.92	49.86
898	3.50	3.03	5.95	6.39 1.29	4.33	2.86	4·42 2.52	2.52	5.09	2.40	5.3 <sup>2</sup> 2.5 <sup>1</sup>	1.52	34.69
900	4.20	6.83	4.60	1.90	5.07	1.85	2.69	2.46	4.62	3.41	4.17	2.25	44.05
901	1.56	0.66	6.58	7.43	6.31	1.31	5.20	3.25	2.50	3.02	2.41	8.49	48.72
902	1.65	4.19	5.29	2.87	1.07	1.77	2.88	2,20	2.08	4.36	1.09	4.48	33.93
903	3.43	3.90	5.95	4.43	0.32	7.19	2.99	3.33	2.43	3.95	1.48	2.57	41.97
904	4.80	2.49	2.43	9.14	3.38	2.06	1.23	2.19	5.57	0.82	1.70	3.23	39.64
905	2.96	1.59	2. 25 5.45	2.15	1.47	5.23	5.38	3·39 1·58	2.64	3.88	2.55	3.96	32, 08
907	2.54	1.88	1.66	3.31	3.12	2.56	1.09	1.10	7.43	2.54	6.02	4.31	37.56
908	2.47	2.96	2.97	1.70	3.78	1.08	3.17	4.35	0.68	3.70	0.74	2.47	30.07
909	3.94	4.71	3.28	3.92	2.33	4.45	0.97	3.55	5.15	1.07	4.11	3.19	40.67
910	4.25	3.44	1.25	2.22	I.02	4.89	1.15	0.98	2.14	1.14	3.75	2.10	28.33
911	2.25	2.85	2.95 4.18	2.28 3.07	0.35	3.67 <b>0.27</b>	4.65	1.94	2.95	2.27 1.00	2.61	3.07 5.36	35.78 34.55
913	2.38	2.99	4.81	4.77	3.22	0.64	2.69	2.86	2.51	6.04	2.15	3.05	38.11
914.	3.26	3.07	4.16	5.87	2.78	1.40	2.64	3.20	2.51 0.21	1.54	2.72	3.46	34.31
915	6.33	3.47	4.16 T.	1.86	1.64	1.39	8.85	5.63	0.69	2.82	2.14	3.94	38.76
916	1.23	5.18	3.20	4.51	2.83	5.04	5.67	2.19	1.90	0.94	1.67	3.00	37.36
917	2.82	2.67	3.73	3.08	1.99	4.05	2.64	7.06 1.56	9.19	5.33	1.20	2.56	38.99
919	3.11	2.30	3.19		4.25	1.08	4.63	5.07	5.83	2.13	5.36	1.63	34.40
920	2.72	5.88	3.72	2.33 5.68	5.26	5.78	1.56	2.32	1.90	1.64	5.46	3.89	42.70
921	2.24	2.64	1.92	4.62	3.64	3.58 8.05	11.69	1.63	1.22	1.24	6.19	2.35	42.98
922	1.41	2.64	4.35	2.48	5.34	8.05	2.63	4.75 1.86	3.66	1.97	0, 84	3.01	41.13
923	6.07	1.18	2.49	5.26	0.83	2.03	3.36	6.86	6.96	3.37 0.06	2.78	4.98	34.89
924 925	3.27	2.61	5.21	3.79	2.07	1.07	3.54	1.40	3.45	4.03	3, 66	1.48	34.92
926	2. 53	5.56	2.91	1.73	3.31	1.33	6.06	3.91	1.08	3.58	4.07	3.96	40.03
927	2.67	3.28	1.19	1.36	2.50	2.43	4.77	5.73	2.43	3.77 2.88	4.71	5. 23	41.07
928	1.66	2.66	1.56	4.68	3, 08	5.56	4.14	2.45	4.47	2.88	1.85	2, 61	37.60
929	3.82	3.78	2.80	7.52	2.82	2,30	1.35	2.22	0.76	2.38	3.01	4.43	37 . 19
930	2.77	2, 23 4.2I	3.02 4.66	2.08	3.39	2.24 9.13	3.36	3.03	0.26	5.83	4.09	2.99	35. 29 44. 17
931	4.21	1.74	5.28	1.67	1.63	2.05	2.10	4.45	4 50	7.18	5.24	1.78	41.6
933	2.04	3.77	6.80	7.37	2.74	1.22	2.63	3.41	10.94	3.11	0.65	2.93	47.6
934	2.67	4.45	4.04	3.21	1.56	3.11	1.25	1.83	5.67	2 94	1.78	1.64	34.15
935	6.13	3.26	1.52	4.77	1.35	5.07	1.10	2.14	2.69	0.34	3.91	0.66	32.94
936	5.46	3.66	6.40	3.54	1.70	2.37	1.04	5.15	3.79	2.67	1.33	8.19	46.30
937	3.93	2.38	3.57	5·34 3.22	2.52 4.42	3.47 6.30	9.46	4.97	3.69	3.95	4.66	5.09	43.67
939 • •	2.18	3.79	5.23	4.54	1.29	2.70	0.75	3.31	1.01	4.77	1.14	2.91	32. 45
940	1.68	4.78	3.83	4.58	3.28	1.80	3.17	0.85	2.32	0.76	6.24	2.76	36.05
941	4.21	1.70	3.40	1.70	2.43	4.29	2.90	1.55	1.18	1.92	2.40	3 19	30.87
942	3.69	3. 45	7.01	1.59	2, 11	4.24	4. 14	2,09	1.96	2.78	4. 69	4.72	42.47
I'ns I'ns	*3.57 †3.63	3.29 3.44	3.83	3·55 3.76	3.11 3.41	3.16	3.36	3 62 3.92	3.16	3.28 3.43	3.59 3.84	3.36 3.65	43.08

Note.—Bold-faced figures indicate greatest and least monthly and annual amounts. \* Computed from the Weather Bureau records of 72 yrs. † Averages 125 yrs. From 1818 to 1822, Dr. Enoch Hale; from 1823 to 1865, Jonathan P. Hali; from 1866 to 1870, Superintendent of Sewers.

## KILLING FROSTS

Year	Latest date in spring	Earliest date in autumn	Year	Latest date in spring	Earliest date in autumn
1873 1874 1874 1875 1876 1876 1877 1878 1887 1888 1881 1888 1884 1883 1884 1885 1889 1891 1890 1899 1900 1901 1900 1902 1903 1904 1906 1906 1907 1908	May 3 April 29 April 10 April 10 Mar 26 April 10 April 15 May 16 April 15 May 16 April 15 May 16 April 22 April 16 April 29 April 19 April 29 April 19 April 29 April 19 April 20 April 19 April 20 April 10 April 20 April 30 April 20 April 30 April 30 April 31	Nov. 5Oct. 9Nov. 12Oct. 13Oct. 12Oct. 28Nov. 3Sept. 26Oct. 25Oct. 6Oct. 17Oct. 17Oct. 17Oct. 17Oct. 25Oct. 17Oct. 26Sept. 30Oct. 17Oct. 27Oct. 25Oct. 27Oct. 27Oct. 27Oct. 27Oct. 27Oct. 31Oct. 17Oct. 31Oct. 17Oct. 22Oct. 23Oct. 31Oct. 31Oct. 32Oct. 32Oct. 32Oct. 32Oct. 32Oct. 32Oct. 33Oct. 32Oct. 31Oct. 31	1912. 1913. 1914. 1915. 1916. 1917. 1918. 1919. 1920. 1921. 1922. 1923. 1924. 1925. 1926. 1927. 1928. 1929. 1930. 1931. 1932. 1933. 1933. 1933. 1935. 1939. 1939. 1939. 1939. 1939. 1939. 1940. 1941. 1942.	April 10 April 14 April 4 April 4 April 12 April 12 April 13 April 18 April 18 April 19 April 19 April 19 April 20 April 20 April 21 April 20 April 31 April 20 April 31 April 21 April 20 April 37 April 17 April 19 April 17 April 24 April 25 April 16 April 27 April 28 April 17 April 29 April 17 April 29 April 17 April 29 April 18 April 24 April 22 April 11 April 17	Oct. 16Nov. 1Oct. 28Nov. 18Nov. 18Nov. 18Nov. 19Oct. 20Oct. 19Nov. 11Oct. 26Oct. 27Nov. 22Oct. 27Nov. 22Oct. 21Nov. 24Oct. 28Oct. 21Nov. 40Oct. 13Oct. 18Oct. 18Oct. 29Oct. 29Oct. 29Oct. 29

Average date last killing frost in spring, April 16. Latest date, May 16, 1882 and 1936. Average date first killing frost in autumn, October 24. Earliest, September 26, 1879.

Wind	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
North } per cent of time. hourly velocity	11 10	9	8 <b>10</b>	9	7 9	6 9	5 8	7 8	9	9	11 10	10 11	
Northeast { per cent of time. hourly velocity	4 11	6 10	7 10	11 9	11 8	9 <b>8</b>	6 <b>6</b>	6 7	7 8	8	6 <b>8</b>	4 9	
East { per cent of time. hourly velocity	4 11	6 9	10 9	14 10	17 8	16 8	13 <b>6</b>	15 7	12 7	8 7	5 10	4 9	
Southeast. { per cent of time. hourly velocity	4 8	4 8	6 <b>8</b>	5 <b>8</b>	6 <b>8</b>	5 7	5 <b>6</b>	7 6	6 7	5 <b>7</b>	4 10	4 8	
South { per cent of time. hourly velocity	6 <b>9</b>	7 8	8 11	7 11	10 10	9 <b>9</b>	9 <b>9</b>	9 <b>8</b>	9 <b>10</b>	9	7 10	6 <b>10</b>	
Southwest { per cent of time. hourly velocity	20 11	15 10	17 10	16 11	20 9	25 10	30 9	24 9	23 9	20 10	21 10	20 10	
West { per cent of time. hourly velocity	29 12	29 12	23 12	20 12	17 10	20 10	21 8	19 <b>9</b>	18 <b>9</b>	22 10	25 11	30 12	
Northwest { per cent of time. hourly velocity	22 12	24 12	21 12	18 11	12 10	10 8	11 8	13 <b>8</b>	16 9	19 <b>10</b>	21 10	22 11	
Prevailing direction	w.	w.	w.	w.	sw.	sw.	sw.	sw.	sw.	w.	w.	w.	w.
Average hourly velocity	11	12	12	11	10	10	9	9	9	10	11	11	10

Based on 24 years records: anemometer elevation 188 feet above ground.

Daily	Maximum	Temperature,	1942
		1 1	

		2000	any and		W.III -	om po	Lwoul	0, 20	~~			
Date	January	February	March	April	May	June	July	August	September	October	November	December
1	40 60 39 36 36 31 24 24 26 32 32 32 42 42 42 42 42 43 43 44 44 44 44 44 44 44 44 44 44 44	46 25 16 28 32 28 37 40 39 30 34 31 25 28 35 40 37 48 44 44 33 32 22 20 32 38 38 40 37 31 31 31 31 31 31 31 31 31 31 31 31 31	48 47 45 53 41 49 <b>65</b> 61 44 45 53 47 42 44 41 53 47 47 50 42 44 44 40 40 40 40 40 40 40 40 40 40 40	50 62 63 46 60 72 58 56 40 37 71 50 60 63 69 63 69 75 63 63 75 63 75 63 75 63 75 63 75 75 75 75 75 75 75 75 75 75 75 75 75	69 74 85 85 71 63 65 67 67 67 67 67 67 68 70 77 71 66 67 77 66 67 77 68 68 68 68 68 68 68 68 68 68	65 62 55 64 76 64 778 779 772 78 88 89 89 1 83 67 66 57 66 57 84 80 777 88 78 84 84 84 75 5.4	84 72 73 88 88 88 87 86 80 74 72 66 83 88 89 79 79 77 72 71 88 88 88 88 88 89 74 74 75 88 88 88 88 88 76 66 88 88 88 88 88 88 88 88 88 88 88 88	87 80 85 81 72 78 75 66 67 71 87 77 72 72 78 85 87 87 88 92 91 88 87 69 66 67 67 67 67 67 67 67 67 67 67 67 67	83 91 88 65 77 73 62 77 62 77 87 87 87 87 87 87 87 87 87	66 67 57 69 69 69 69 65 70 73 82 65 57 60 65 57 60 65 57 60 65 65 65 65 67 72 63 55 62 67 72 63 55 62 67 63 55 62 67 62 63 55 62 67 62 63 55 62 67 62 63 55 62 67 62 63 55 62 67 62 63 55 62 67 62 63 55 62 67 62 63 55 62 67 62 63 55 62 67 62 63 55 62 67 62 63 55 62 67 62 63 55 62 62 67 62 63 55 62 62 62 62 62 62 62 62 62 62 62 62 62	71 60 56 46 46 52 51 48 49 64 52 43 53 32 59 56 66 59 56 70 58 41 45 41 45 45 45 46 46 46 46 46 46 46 46 46 46 46 46 46	35 44 45 59 35 36 36 37 40 39 37 33 34 41 45 47 33 32 20 224 4 15 8 13 39 40 46 35 50 43 35.4
Meall	90.4	04.0	71.0	90.9	03.0	10. 2	100	10.4	82.2	05.0	01.0	90.4

Maximum temperature for year 93°, July 14th.

Daily Minimum Temperature, 1942

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	34 36 32 25 24 11 10 17 5 3 15 12 27 4 4 32 27 4 4 4 32 37 35 30 24 27 4 27 4 27 4 27 4 27 4 27 4 27 4	24 8 1 8 21 32 31 20 16 17 17 14 12 21 22 34 30 10 10 17 11 19 24 24 26 31	35 35 34 32 39 33 33 34 33 32 31 33 33 34 35 36 37 38 38 38 38 38 38 38 38 38 38 38 38 38	37 40 42 36 35 47 37 32 32 34 43 35 37 47 47 40 40 40 40 40 40 40 50 50 50 50 50 50 50 50 50 50 50 50 50	53 50 50 50 50 50 50 50 50 50 50 50 50 50	54 54 51 53 53 55 57 63 59 66 67 63 59 61 61 63 61 63 63 64	666 64 61 69 63 65 59 58 65 71 65 66 66 67 61 65 66 67 61 65 66 67 61 65 66 67 61 65 66 67 61 65 66 67 61 65 66 67 61 65 66 67 61 65 66 67 61 65 66 67 61 65 66 67 61 65 66 67 61 61 65 66 67 61 61 65 66 67 61 61 61 61 61 61 61 61 61 61 61 61 61	64 65 67 59 57 60 61 64 60 68 66 67 71 72 70 64 67 171 74 68 60 56 55 58 60 56 56 56 56 56 56 56 56 56 56 56 56 67 62 68 69 69 69 69 69 69 69 69 69 69 69 69 69	61 66 64 60 59 52 57 58 62 67 66 63 56 56 63 56 51 51 53 54 54 54 54 55 54 56 56 56 56 56 56 56 56 56 56 56 56 56	46 46 40 43 55 55 55 55 55 55 54 47 45 55 54 45 55 54 45 55 54 45 55 54 46 42 44 45 55 56 46 46 46 46 46 46 46 46 46 46 46 46 46	46 42 37 35 33 45 42 37 36 41 32 23 37 41 50 44 44 45 26 42 31 30 34 31 30 34 4	29 26 24 23 27 31 27 24 26 38 34 21 25 2 -3 11 -7 -11 -5 7 36 35 22 22 29 29
Mean	20.7	19.8	34.3	40.9	52.0	59.4	63. 4	63.0	56.9	48.1	36.0	21.7

Minimum temperature for year -11°, December 20th.

## Daily Precipitation, 1942

April  January  March  April  August  September  October  November  December	iber
	Noven
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	*T. 00 * 1.00 * T. *T. *T. *T. *T. *T. *T. *T. *T. *T

T. indicates a trace. \*Wholly or partly snow.

## Daily Cloudiness, 1942 [Daylight hours; scale 0 to 10]

			LDa	yngm	nours	, scan	0 00	10 ]				
Day	January	February	March	April	May	June	July	August	September	October	November	December
1	8 8 8 1 10 9 0 3 1 1 8 100 7 7 4 1 1 2 2 7 7 1 0 0 7 7 7 7 6 4 4 10 10 0 0 3 10 0 0 3 10 5 5 6 6	8 1 0 3 3 10 10 10 10 10 0 7 7 6 2 2 3 8 8 2 2 7 7 9 0 5 5 5 6 8 8 4 4 0 4 4 4 6 6 9	8 8 10 7 7 10 10 10 4 4 5 10 6 6 1 1 8 0 10 10 6 10 7 9 0 10 8 9 5 4 4 7 6 6 2 4 4 10 6 6 6 6 . 8	6 1 7 7 10 7 9 7 10 10 10 10 5 5 5 5 10 10 10 10 10 10 10 10 10 10 10 10 10	77 37 79 11 710 97 76 61 18 77 10 88 88 10 10 99 10 99 10 97 73 44 66 97 47 78 78 78 78 78 78 78 78 78 78 78 78 78	9 10 10 10 6 5 10 5 2 4 4 6 6 6 4 9 9 10 8 8 5 4 4 10 9 9 9 9 10 9 9 10 9 10 9 10 9 10	9 10 8 9 5 5 5 2 6 3 7 10 4 3 5 5 2 2 6 9 9 10 8 8 8 7 7 10 10 10 10 10 10 10 10 10 10 10 10 10	57 46 66 33 44 77 10 10 40 10 10 68 89 88 20 48 88 61 12 12 11 98 82 98 98 98 98 98 98 98 98 98 98 98 98 98	0 0 5 10 5 1 17 10 10 8 10 10 2 3 4 4 4 1 1 7 9 10 10 10 4 3 2 2 0 7 10 5 3 3 1 5.4	2 1 4 4 10 4 1 1 0 4 3 3 5 5 10 6 9 8 8 9 7 10 10 11 11 16 16 16 16 16 16 16 16 16 16 16	10 3 10 1 1 1 9 4 4 10 3 9 7 7 2 2 7 7 5 8 8 9 9 10 10 10 10 10 10 10 10 10 10	10 8 8 1 1 5 6 1 10 7 10 10 10 11 13 2 6 1 1 1 1 1 1 1 1 1 1 1 1 1
					1		100					

Note.—Clear (0 to 3). Partly cloudy (4 to 7). Cloudy (8 to 10).

for a state of the soul



## U S. DEPARTMENT OF COMMERCE WEATHER BUREAU

# ANNUAL METEOROLOGICAL SUMMARY

WITH COMPARATIVE DATA

1943

BOSTON, MASS.

COMPILED BY
G. H. NOYES

Kirstein Business Library

BOSTON, MASS.

SUMMARY FOR YEAR 1943, BOSTON, MASS.

2				101	,	ALDE		110								
		Min. temp.	0° or below.	0	2	0	0	0	0	0	0	0	0	0	1	69
		Te1	32° or below.	31	20	20	7	0	0	0	0	0	0	œ	25	ΙΞ
		x.	900 or above.	0	0	0	0	0	1	5	က	0	0	0	0	15
		Max. temp.	32° or below.	14	1~	4	0	0	0	0	0	0	0	0	9	31
04.0	3,3		Dense fog.	-	0	4	0	5	0	0	1	က	4	0	0	18
ا و	70		Thunderstorms.	0	0	0	က	4	77	1	2	7	0	0	0	21
hor	120	more	Snow ( .01 in. or smelted.)	1-	က	2	0	0	0	0	0	0	0	0		13
Number of days	m N		With precipitati	13	10	=	15	16	11	10	6	∞	13	12	7	135
	,		Cloudy.	16	11	17	11	16	∞	14	12	15	19	13	12	161
			Partly cloudy.	9	6	9	14	=	16	13	6	∞	5	6	7	113
			Clear.	6	∞	∞	5	4	9	4	10	7	7	∞	12	88
_		per .	Gales (32 miles hour or over)	° 60	2	0	9	2	0	0	0	0	4	2	4	23
		st.	Date.	28	28	9	19	25	16	2	13	30	56	6	11	Dec.
	٠,	Highest	Direction.	ne.	SW.	9	ne.	ne.	ne.	SW.	SW.	ne.	ne.	SW.	nw.	nw.
Wind			Velocity.	40	40	31	37	33	27	28	28	31	41	39	44	44
		.noite	Prevailing direc	×.	W	nw.	nw.	nw.	sw.	SW.	SW.	ne.	nw.	nn	nw.	nw.
		-91	Average hourly locity.	13.0	13,6	12.8	13.8	10.4	11.1	9.7	9.8	10.6	11.9	11.6	12.4	11.7
a-	ne	ble.	Percent of possi	45	99	09	09	99	69	22	99	51	41	54	22	55
-uns	shi	·s	Number of hour	133	166	222	240	255	315	255	241	192	140	158	155	2473
			Snowfall.	26.4	4.5	8.0	F.	0	0	0	0	0	0	Ţ.	0.3	39.2
Precipitation.			Date.	28-29	2-9	2-9	13-14	2122	17-18	29-30	13-14	22	26-27	8-9	26-27	Oct. 26-27
recini	Jones	*s.m	Greatest in 24 ho	1.53	0.49	2, 16	09.0	1.43	0.65	0.99	0.76	0.41	2,66	0.54	0.69	2.66
- A			Total.	3.74	1.23	4.02	2.64	4.56	1.49	3.91	1.28	1.41	4.82	2. 16	0.99	32, 25
	ve	ıt).	.m .q 08: 7	99	64	29	22	69	64	29	69	72	89	99	51	64
	Relative	(percent)	1:30 p. m.	58	58	54	47	09	20	55	99	69	58	99	46	55
	21 1	(pe	7 :30 a. m.	74	7.5	29	6.5	71	69	74	74	78	9/	74	54	20
			Date.	22	15	41	7	2	œ	-	27	19	25	29	24	Feb.
		mes.	Lowest.	60	-14	9	20	35	49	53	99	44	35	24	0	-14
Temperature.		Extremes.	Date.	25	23	26	25	17	25	18	2	16	6	6	6	June 25
ners			Highest.	47	63	89	75	85	6	93	94	82	81	29	52	97
Ten			Monthly.	25.5	30.6	36.0	43.4	57.6	71.2	74.1	71.0	63.0	53.8	43.3	29.6	49.9
		Mean.	Minimum.	19.4	22.4	28.4	35.2	49.4	6.09	65.5	63.1	55.3	46.7	36.5	21.2	42.0
			Maximum.	31.6	38.7	43.5	51.5	65.7	81.4	82.7	78.9	9.07	8.09	50.1	37.9	57.8
			Month.	January	February.	March	April	May	June	July	August	September	October	November	December.	Year
						THE	6									

Elevation of instruments above ground: thermometers, 33 feet; raingage, 3 feet; anemometer 62 feet.

# COMPARATIVE DATA AND EXTREMES

1	Minimum temp.	8 1180000000000000000000000000000000000
	Minimum temp. 820 or below.	226 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
S.Y.S	Max. temp. 900 00 above	eg 0000xxx4x1000 e
of da	Dense fog	388
ber o	Thunderstorins	20
Average number of days	Snow (trace or	10 10 10 10 10 10 10 10 10 10 10 10 10 1
rage	Hain, .01 or more	60 111 111 110 100 100 100 100 100 100 1
Ave	Cloudy	63 112 111 111 112 113 113 113 113 113
	Partly cloudy	63 11 11 11 11 11 12 13 14 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18
	Clear	63 10 10 10 10 10 10 10 10 10 10 10 10 10
	Year	60 1986 1940 1940 1940 1941 1942 1933 1933 1933 1933 1933
nd	Direction highest velocity	60 ne.
‡ Wind	Highest relocity	60 60 60 60 60 60 60 60 60 60 60 60 60 6
17	-997ib gailis7974 noit	60 60 W.
1	Average hourly velocity	60 47.22.12.2.12.2.2.12.2.2.12.2.2.2.2.2.2.2
nine	Ретсепб	51 52 53 54 55 55 56 56 57 57 57 57 57 57 57 57 57 57
Sunshine	Total hours	51 143 166 2212 2212 2270 2268 291 291 142 1142 1142
ve ity nt	8 p.m.	04 050 868 868 868 868 868 868 868 868 868 86
Relative humidity per cent	Noon—local time	14 661 67 67 682 683 683 683 683 683 683 683 683 683 683
# # # # # # # # # # # # # # # # # # #	8 a. m.	04 77 72 60 60 60 60 60 60 60 60 60 60 60 60 60
	Year	69 1897 1921 1892 1917 1917 1884 1808 1909
ı ı	Createst snowfall study for the study for th	69 14. 7 16. 0 12. 0 0 0 0 0 0 0 0 12. 0 12. 0 1
tatio	Average snowfall	7.1 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1
Precipitation	Year	65 1881 1886 1877 1921 1921 1921 1933 1795 1937 1937 1937
<u>a</u>	Greatest in 24 sours	6 24.6.5.6.0.0.4.0.4.0.0.0.0.0.0.0.0.0.0.0.0.0.0
	Normal	00 10 10 10 10 10 10 10 10 10
	Year	62 1882 1934 1872 1874 1874 1879 1940 1940 1940 1935 1935
	tesmol stulosdk	62 1
ure	7еат	62 1876 1930 1921 1938 1880 1917 1917 1917 1917 1911
erat	Absolute highest	69 27 69 104 69 88 88 88 88 88 88 88 88 88 88 88 88 88
Temperature	Zormal	46. 66. 69. 69. 69. 69. 69. 69. 69. 69. 6
	Virse driby muminim	00 00 00 00 00 00 00 00 00 00 00 00 00
	Vliab eggreyA mumixam	60 835.8 86.6 86.4 87.1 77.1 80.1 80.1 80.1 80.1 80.1 80.1 80.1 80
	Month	L'gth of record years. Jan Feb March March March June J

† Anemometer, 62 feet above ground: October 1933 to December 1935, anemometer 360 feet, record not used. § Less than 1. \* Has occurred on previous date.

Monthly and Annual Mean	Temperatures
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These temperature records were made at the Astronomical Observatory of Harvard College, which is located on Concord Avenue and Bond Street, Cambridge, Mass., about three miles from the Weather Bureau station in Boston, Mass.

### MISCELLANEOUS DATA FOR 1943.

Barometric Pressure (reduced to sea level).—Mean, 30.00 inches, 1015.9 millibars; highest, 31.02 inches, 1050.5 millibars; March 9; lowest, 28.86 inches, 1012.2 millibars, April 13.

Temperature. — Greatest monthly range, 77°, February; least monthly range, 41°, Sept. Highest mean temperature of three consecutive days, 81°, June 24–26; lowest mean temperature of three consecutive days, 6°, February 14–16.

Precipitation.—Longest period without precipitation, 11 days, Dec. 15-25; longest period with precipitation, 8 days, Jan. 25-Feb. 1. Greatest amount in 24 consecutive hours, 2.66 inches, Oct. 26-29. Maximum amount in 5 minutes, 0.24 inch, July 31; 10 minutes, 0.37 inch, July 31; 15 minutes, 0.53 inch, July 31; 30 minutes, 0.72 inch, July 31; 1 hour, 0.74 inch, July 31.

Frost.—Last killing frost in spring, April 16. First killing frost in autumn, October 11.

Snow.—Greatest snowfall in 24 hours, 12.8 inches, January 28-29. Greatest depth of snow on ground, 17.5 inches. January 31. Last snow in spring occurred on April 16; first in autumn occurred on November 11.

Thunderstorms.— First thunderstorm occurred on April 13; last thunderstorm occurred on September 2.

## Monthly and Annual Mean Temperatures

Year	Јап.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An'l
1871	26.0	28.6	41.5	47.0	57.9	65.9	70.8	71.7	59.3	54.0	36,6	27.9	48.9
1872	27.4	28.1	26.0	46.6	59 - 4	68.9	75.6	73.0	64.5	51.8	40.6	23.2	48.8
1873	25.1	26.3	33.9	45.0	50.8	67.2	72.9	69.8	62.8	53 - 5	33.4	32.0	48.2
1874	30.5	27.0	34 • 4	38.8	55-4	66.0	72.6	68.0	64.4	53.2	41.6	31.3	48.6
10/5	20.1	22.3	31.4	42.6	57.9	66.7 68.8	72.I	71.0	60.6	50.2 48.2	35.0	29.6 22.2	46.6
1877	30.7 24.8	27 · 4 34 · 2	33.4	43.9	54.6 55.0	66.8	74.0 71.1	70.2	59·9 65·2	52.0	4I.4 44.2	36, 4	47.9 50.1
	28 0	30.6	39.6	48.2	56.5	64.6	73.7	69.7	64.2	56.1	40.8	30.3	50.2
1879	24.2	24.6	33.6	42.4	60.2	64.8	70.8	69.3	62.0	57.6	38.8	32.3	48.4
1880	34.6	31.8	33.2	46.4	63.7	68.6	71.8	70.8 71.4	65.2	52.2	38.2	26.7	50.3
	22.0	27.9	37.2 36.0	43.6	56.6	61.7 66.8	70.2	71.4	67.6	54 - 4	43.6	39.0	49.6 48.8
1882	26.0	30.4	30.0	42.8	50.6		73.2	71.5 68.2	59.8	55·4 47.7	39.0	30.4 29.1	48.8
1883	24.4 24.I	31.2	30.8	45.2 43.8	56. 5 54.8	70. I 67. 2	71.7 68.6	69.7	66.9	52.6	41.4	33.8	47.9
1885	27.4	20.6	27.6	47.2	53.2	66.8	71.8	67.8	60.1	51.6	44.0	32.7	47.6
T386	25.8	26.6	33.3	47.2 48.6	56.8	63.2	71.2	67.8 68.2	63.1	52.0	43.2	28.4	47.6
т882	25.0	28.7	31.5	44.2	59.6	65.2	74.6 68.8	67.6	59.8	51.5 47.8	42.2	32.4	48.5
	20.1	28.3	32,2	42.6	53.0	66.8		70.2	59.8	47.8	43.8	34.6	47.3
1889	35.8	26.0	38.2	47.8	60.3	69.2	69.4	67.4	62.8	48.5	44.6	38.0	50.7
1000	32.4	33.2	34.9	46.3	57.0	64.2	71.0	68.9	62.9 66.7	51.0	41.8	26.0	49.1
1891	3I.I 28.3	32.0	33.6	48.0	55.8	65.0	69.0	70.0	62.5	51.6 52.7	4I.4 4I.2	<b>40.4</b> 29.9	50 · 4 49 · 4
1893	20.7	26.8	32.8	44.4	55.9	64.8	73·0 71·4	69.6	60.0	54.8	42.2	30.4	49.4
1804	30. I	26.6	42.5	47.0	57.0	68.8	73.7	68.0	64.8	54.0	38.2	32.2	50.3
1895	28.8	24.6	34.6	46.0	60.2	66.8	60.3	71.0	65.7	49.6	45 - 4	35.6	50.3
1800.	24.9	28.7	32.0	47.2	60.3	66.1	71.8	70.7	02.2	50.2	46.5	30.4	49.2
1897	28.4	30.9	36.9	49.0	57 • 6	62.3	71.0	69.6	63.1	54.4	41.4	34.0	49.9
1000	28.7	32.8	42.8	43.8 48.1	55.8 57.8	65.8	71.8	73·1 68·8	66.2	54.2 54.5	42.0 42.I	32.0 36.2	50.8
1899	30.0	29.3	34.0	48.6	55.2	68.6	73.8	71.1	65.0	56.6	44.6	34.4	50.2
1901	27.6	24.2	36.2		54.3	68.2	73.4	70.7	65.4	54 • 4	37 - 2	32.4	49.0
1902	26.6	28.8	43.4	43·5 48·4	57.6	61.3	73·4 67·8	70.7 67.6	02.6	53.6	37·2 46.2	28.5	49.6
1903	26.8	31 - 4	44.4	47.8	58.5	59.8	71.4	65.0	64.4	53.9	40.0	29.0	49.4
1904	21.6	22.6	34.6	44.6		64.0	71.4	68.7	62.5	50.6	38.2	25.8	47.I
1905	25. I	23.4	37 - 2	46.8	57.6 58.0	65.2	73.2	68.6	62.0 65.0	53.6	41.6	35.1	49. I 50. o
1906	35.7	29.7 21.6	32.4	43.4	52.4	65. 1	72.4	69.6	64.4	52.5 49.8	41.7 43.2	29.I 37.2	48.7
1907	31.0	26.8	37.9	46.8	59.0	69.8	74. I	69.4	65.8	55 · 4	43.6	33.3	51.2
1909	30.3	32.6	36.8	47.8	55.8	69.4	71.5	69.4	62.6	52.8	46.4	33·3 30.8	50.5
1910	32.0	29.5	42.0	51.6	57.6	65.2	74.9	08.8	62.8	56.0	41.2	27.5	50.8
1911	31.8	27.0	35.4	40. I	62.4	65.6	77.1	69.0	62.6	52.6	41.8	39 • 4	50.9
1912	21.4	27.7	36.0	47 · 4 48 · 0	58.6	68.0	73.2	69.0	63.7	57 - 4	45.6	38 · 5 37 · 8	50.5
1913		27.7	42. 4 36. 7	45.3	55.2	67.5 67.3	73.8 68.6	70.8 70.4	64.6	56.4	46.5	30.4	52·3 49·7
1915		33.2	35.8	50.8	56.6	63.9	70. I	69.1	66.8	55.7	45.4	34.2	51.2
1916	33.0	25.5	30.6	45.6	58.6	62.6	72.6	71.8	65.0	55.5	42.6	32.6	49.7
1917	30.2	25.8	37.2	44.0	50.7	65.8	73.3	72.8	60.2	51.9	39.4	23.7	47.9
1918	21.0	26.9	36.7	47.8	63.3	63.9		70.4	61.2	56.2	45.0	34·7 28.7	49.8
1919		32.6	40.8	46.9	59.1	07.2	74.0	68.8	63.9	55.1	42.8	28.7	51.1
1920	2I.0 32.I	27.6 32.6	39.2 46.2	45.0 51.8	54·6 58.0	65.8 68.2	72.4	72.0 69.8	65.2	59.8	41.7	35.6 31.4	50.0 52.4
1921	27.2	32.0	39.8	48.7	61.4	68.6	72.0	70.1	65.2	55 · 2 55 · I	43.8	30.9	51.3
1923		23.4	33.9	48.2	57.6		70.0	69.4	64.2	55.5	44.6	40.4	50.3
1924	31.9	26 6	37 - 4	47.2	56.2	69.3 66.6	73.8	71.8	62.2	54.6	44.6	31.1	50.3
1925	27.2	38.0	43.0	49.8	57 - 4	70.9	72.4	71.2	64.0	49.3	43.6	33.6	51.7
1926	31.0	27.8	34.2	44.8	56.0	64.3	70.5	70.4	62.4	53-4	44.2	28.6	49.0
1927	30.6	32.6	41.6 37.0	48.3	55.2	65.0 65.0	72.2 73.2	67.4	65.0	57·9 56.6	<b>49.6</b> 44.8	36.0 38.5	51.8
1925	29.0	31.7	41.1	47.I	55·4 61.0	68.4	72.6	73.6	65.2	53.2	44.7	32.6	51.4
1930	31.8	34 - 1	38.3	47.6	59.4	72.4	72.6	70.5	69.4	53.0	45.0	33.2	52.3
1931	30.6	30.6	39.3	50.2	60.3	67.2	74.0	72.2	66.9	58.5	49.4	36.6	53.0
1932	38.8	30.6	35.0	47·4 46.5	60.2	66.4	72.8	74.0	65.2	57·I	42.8	38.1	52.4
1933	37.8	33.7	35.7	46.5	61.6	69.6	70.8	71.8	65.8	52.7	38.3	26.8	50.9
1934	29.6	17.5	35.I 38.4	48.0	60.6	66.9	73.2	67.3	64.6	49.6	45.6	28.4	48.9
1935	23.2	27.8	35.4 41.8	45.2 45.2	55·5 60.6	65.5	72.6 71.1	70.7 69.7	61.4	53.8 54.4	45·4 39·5	27.I 35.0	49.7
1937		33.2	34.1	45.2	59.1	66.4	73.2	74.6	63.0	52.6	44.0	31.2	51.2
1937	37·4 28.0	30.6	30.1	48.7	55.8	67.2	71 8	73.6	62.2	56.0	46.4	34.0	51.1
1939	27.8	32.2	33.2	43.6	56.4	65.6	72.3	73.8 68.4	64.5	54.2	40.8	33.4	49.8
1940		29.6	33.1	43.6	56.2	65.1 68.2	71.6	68.4	63.3	50.6	42.9	34 - 3	48.5
1941	25.2	29.4	33.4	51.6	59.8		71.4	70.6	66.0	55-9	48 0	35.2	51.2
1942	28.6	27.0 30.6	40.8 36.0	49.7	60.8	67. 4	71.1	70.7	64.6	55.8	43.5	28.6	50.7 49.8
1943	25. 5	30,0	30.0	43.4	57.6	71.2	74. 1	70. I	63. 0	53.8	43.3	29.4	49.0
		0 -	-	-						-			
M'ns	28.5	28.5	36.4	46.5	57 • 3	66.7	72.1	70.2	63.7	53.6	42.6	32.3	49.9

Note.—Bold-face figures indicate highest and lowest monthly means.

## SEASONAL SNOWFALL.

1871-2 1872-3 1873-4 1873-4 1873-4 1873-4 1873-6 1875-6 1875-6 1875-6 1875-6 1876-7 1877-8 1878-9 1887-9 1887-9 1880-1 1881-2 1882-3 1883-4 1883-4 1883-4 1884-5 1888-6 1888-7 1888-7 1889-6 1889-7 1889-6 1890-1 1890-1 1890-1 1900-1 1900-1 1900-1 1900-1 1901-2 1902-3 1903-4 1904-5 1905-6 1906-7 1907-8 1905-6 1906-7 1907-8 1905-6 1906-7 1907-8 1908-9 1909-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 1901-1 19	0 0 0 T.	T. 0.3 7.55 T. 0.3 T. 0.3 6.0 0.8 1.55 T. 4.8 0.55 T. 4.8 T. 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	12.3 23.7 13.7 5.7 1.1 9.0 0.8 1.2 18.6 19.2 T. 6.0 24.4 2.3 5.5,5 6.5 T. 4.0 14.5	3.4 11.6 20.3 10.4 0.5 14.3 18.2 20.5 19.6 11.9 3.9 21.5 16.0 13.1 4.5 8.5	11.3 8.3 22.7 0.3 5.4 T. 12.6 11.9 11.4 9.0 17.9 9.0 12.5 3.3 4.0 12.0 9.6 7.5 6.3	17.3 5.2 3.9 27.3 3.0 15.5 7.8 15.0 3.1 5.6 4.3 7.7 9.5 4.5 11.5 12.0	0 T. 28.3 6.3 T. 0 4.0 0 4.2 0 T. T. 9.5 T. T.	OT. OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO	44.3 49.1 96.4 50.0 10.0 42.3 27.7 43.4 54.2 56.8 40.4 38.9 66.0 73.0 41.2
1873-4 1874-5 1875-6 1876-7 1877-8 1878-9 1879-0 1880-1	0 0 0 T.	7.5 T. 0.3 T. 0.3 6.0 0.8 1.5 10.0 T. 4.8 0.5 T. 4.8 T. 0	13.7 5.7 1.1 9.0 0.8 1.2 18.6 19.2 T. 6.0 24.4 2.3 5.5 18.5 6.5 1.0	20.3 10.4 0.5 17.5 14.3 18.2 20.5 15.4 9.6 11.9 3.9 21.5 16.0 13.1 4.5 8.5	22.7 0.3 5.4 T. 12.6 11.9 11.4 9.0 17.9 9.0 12.5 3.3 4.0 12.6	3.9 27.3 3.0 15.5 T. 7.8 15.0 3.1 5.6 4.3 7.7 9.5 4.5 11.5 12.0 2.2	28.3 6.3 T. T. 0 4.0 0 4.2 0 T 9.5 T.	0 0 0 0 0 0 0 0	50.0 10.0 42.3 27.7 43.4 54.2 56.8 40.4 38.9 66.0 24.3 36.0 73.0 41.2
1873 - 4 1874 - 5 1875 - 6 1876 - 7 1877 - 8 1878 - 9 1879 - 0 1880 - 1 1881 - 2 1882 - 3 1882 - 3 1883 - 4 1883 - 4 1883 - 6 1884 - 5 1885 - 6 1885 - 6 1885 - 8 1885 - 9 1885 -	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.3 T. 0.3 6.0 0.8 1.5 10.0 T. 4.8 0.5 T. 4.8 T.	5.7 1.1 9.0 0.8 1.2 18.6 19.2 T. 6.0 24.4 2.3 5.5 18.5 T.	10.4 0.5 17.5 14.3 18.2 3.2 20.5 15.4 9.6 11.9 3.9 21.5 16.0 13.1 4.5 8.5	0.3 5.4 T. 12.6 11.9 11.4 9.0 17.9 9.0 12.5 3.3 4.0 12.0 9.6 7.5	27.3 3.0 15.5 T. 7.8 15.0 3.1 5.6 4.3 7.7 9.5 4.5 11.5 0 2.2	6.3 T. T. 0 4.0 0 T. 9.5 T. 15.0	0 0 0 0 0 0 0	50.0 10.0 42.3 27.7 43.4 54.2 56.8 40.4 38.9 66.0 24.3 36.0 73.0 41.2
1875-6. 1876-7. 1876-7. 1877-8. 1878-9. 1879-0. 1880-1. 1881-2. 1882-3. 1883-4. 1884-5. 1885-6. 1886-7. 1887-8. 1888-9. 1888-9.	0 0 T. 0 0 0 T. 0 0 0	0.3 T. 0.3 6.0 0.8 1.5 10.0 T. 4.8 0.5 T. 4.8 T.	1.1 9.0 0.8 1.2 18.6 19.2 T. 6.0 24.4 2.3 5.5 18.5 6.5	0.5 17.5 14.3 18.2 3.2 20.5 15.4 9.6 11.9 3.9 21.5 16.0 13.1 4.5 8.5	5.4 T. 12.6 11.9 11.4 9.0 17.9 9.0 12.5 3.3 4.0 12.0 9.6 7.5	3.0 15.5 T. 7.8 15.0 3.1 5.6 4.3 7.7 9.5 4.5 11.5 12.0 2.2	9.5 T. T. 15.0	0 0 0 0 0 0 0	10. 0 42.3 27.7 43.4 54.2 56.8 40.4 38.9 66.0 24.3 36.0 73.0 41.2
876-7   877-8   877-8   878-9   879-8   880-1   881-2   882-3   883-4   884-5   885-6   885-7   885-8   885-9   885-9   880-1   890-1   890-1	OT. OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO	0.3 6.0 0.8 1.5 10.0 T. 4.8 T. 4.8 T.	0.8 1.2 18.6 19.2 T. 6.0 24.4 2.3 5.5 18.5 6.5	14.3 18.2 3.2 20.5 15.4 9.6 11.9 3.9 21.5 16.0 13.1 4.5 8.5	12.6 11.9 11.4 9.0 17.9 9.0 12.5 3.3 4.0 12.0 9.6 7.5	7.8 15.0 3.1 5.6 4.3 7.7 9.5 4.5 11.5	9.5 T. T. 15.0	0 0 0 0 0 0	27.7 43.4 54.2 56.8 40.4 38.9 66.0 24.3 36.0 73.0 41.2
1871-5 1878-9 1879-0 1880-1 1881-2 1882-3 1882-3 1883-4 1884-5 1884-5 1885-6 1885-7 1887-8 1888-9 1888-9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.3 6.0 0.8 1.5 10.0 T. 4.8 T. 4.8 T.	1.2 18.6 19.2 T. 6.0 24.4 2.3 5.5 18.5 6.5 T.	18.2 3.2 20.5 15.4 9.6 11.9 3.9 21.5 16.0 13.1 4.5 8.5	11.9 11.4 9.0 17.9 9.0 12.5 3.3 4.0 12.0 9.6 7.5	7.8 15.0 3.1 5.6 4.3 7.7 9.5 4.5 11.5	4.0 0 4.2 0 T 9.5 T. T. 15.0 T.	0 0 0 0 0 0	43.4 54.2 56.8 40.4 38.9 66.0 24.3 36.0 73.0 41.2
1879-0. 1880-1. 1880-1. 1881-2. 1882-3. 1882-3. 1883-4. 1884-5. 1885-6. 1885-6. 1886-7. 1887-8. 1888-9. 1889-0. 1890-1.	0 0 0 0 0.5 0 0 0 0 T.	6.0 0.8 1.5 10.0 T. 4.8 0.5 T. 4.8 T.	18.6 19.2 T. 6.0 24.4 2.3 5.5 18.5 6.5 T.	3.2 20.5 15.4 9.6 11.9 3.9 21.5 16.0 13.1 4.5 8.5	11.4 9.0 17.9 9.0 12.5 3.3 4.0 12.0 9.6 7.5	15.0 3.1 5.6 4.3 7.7 9.5 4.5 11.5 12.0 2.2	0 4.2 0 T 9.5 T. T. 15.0	0 0 0 0 0 0	54.2 56.8 40.4 38.9 66.0 24.3 36.0 73.0 41.2
1880-1 1881-2 1882-3 1883-4 1883-4 1884-5 1885-6 1885-7 1887-8 1888-9 1889-0 1890-1 1890-1	0 0 0 0.5 0 0 0 0 T.	1.5 10.0 T. 4.8 0.5 T. T. 4.8 T.	6.0 24.4 2.3 5.5 18.5 6.5 T.	15.4 9.6 11.9 3.9 21.5 16.0 13.1 4.5 8.5	9.0 17.9 9.0 12.5 3.3 4.0 12.0 9.6 7.5	3.I 5.6 4.3 7.7 9.5 4.5 11.5 12.0 2.2	o T 9.5 T. T.	0 0 0 0 0 T.	56.8 40.4 38.9 66.0 24.3 36.0 73.0 41.2
1881-2 1882-3 1883-4 1884-5 1884-6 1886-7 1887-8 1887-8 1888-9 1889-0 1890-1	0 0 0.5 0 0 0 0 0 T.	10.0 T. 4.8 0.5 T. T. 4.8 T.	6.0 24.4 2.3 5.5 18.5 6.5 T.	9.6 11.9 3.9 21.5 16.0 13.1 4.5 8.5	9.0 12.5 3.3 4.0 12.0 9.6 7.5	4·3 7·7 9·5 4·5 11.5 12.0 2.2	T 9.5 T. T. 15.0 T.	o o o o T.	38.9 66.0 24.3 36.0 73.0 41.2
1883-4 1884-5 1885-6 1886-7 1887-8 1887-8 1889-0 1890-1	0 0.5 0 0 0 0 0 T.	T. 4.8 0.5 T. 4.8 T. 4.8 T. 0	24.4 2.3 5.5 18.5 6.5 T.	3.9 21.5 16.0 13.1 4.5 8.5	12.5 3.3 4.0 12.0 9.6 7.5	7.7 9.5 4.5 11.5 12.0 2.2	9.5 T. T. 15.0 T.	o o o T.	66.0 24.3 36.0 73.0 41.2
1884-5 1885-6 1886-7 1887-8 1888-9 1889-0 1890-1	0.5 0 0 0 0 0 T.	0.5 T. T. 4.8 T. T.	2.3 5.5 18.5 6.5 T.	3.9 21.5 16.0 13.1 4.5 8.5	3.3 4.0 12.0 9.6 7.5	9.5 4.5 11.5 12.0 2.2	15.0 T.	o o T.	24.3 36.0 73.0 41.2
1885-6 1886-7 1887-8 1888-9 1889-0 1890-1 1801-2	0 0 0 0 T.	4.8 T. T.	6.5 T.	16.0 13.1 4.5 8.5	9.6 7.5	11.5	15.0 T.	T.	73.0
1837-8 	0 0 0 T.	4.8 T. T.	6.5 T.	13.1 4.5 8.5	9.6	12.0		T.	41.2
888-9 889-0 890-1	0 0 T. 0	4.8 T. T.	4.0	4.5 8.5	7.5	2.2			10.0
889-0 890-1 801-2	0 0 T. 0	0	4.0	8.5	6.3			U	14.0
801-2	T.	0	14.5	1 1 4 X	3	20.3	0	0	39.1
	0 0			12.0	13.8	16.2	T.	0	59+3
(802-2	0		2.0	14.6	35.3		7.0	0	43·5 67·3
893-4	0	0.4	18.5	15.0	21.6	4;5 T.	7.9 8.5	o	64.0
1894-5	-	6.7 T.	13.5 5.2 8.6	13.9	8.8	3.8	0.5	0	47.2
895-6	0	T.	5.2	9.5	9.5	14.5	0.2 T.	0	38.9
807-8	0	8.1	7.8	16.3	10.9	3.3		0	43.2
898-9	0	17.8	7.7 T.	6.1	30.2	9.3	2.2 T.	0	71.1
899-0	T.	0.1	T.	8.3	9.0	9·3 7.6 T.	0	T.	25.0
1900-I	0	0, 1	0.8	7.8	8.8	Т.	30	0	17.5
1003-2	T.	Т.	22.8	4.2	13.0	7·5 0·3	T. T.	0	44. I 42.0
(903-4	0	0	10.6	35.7	16.5	8.9	1 4	ő	73.1
904-5	T.	T.	12.0	21.3	8.0	3.6	Т.	0	44.0
905-6	0	T.	3.5	6.1	6.1	6.6	Т.	0	37.6
900-7	0	1.I 0	7.0	16.1	25.5	4.8	3.I 0.8	Т.	67.9
(908–9	0	T.	3.5	11.2	2.3	3.1	0	o	20. I
909-0	T.	Т.	12.3	11.9	12.6	0.2	0	0	37.0
910-1	0	1.4	8.2	0.7	19.5	3.I 9.I	7.7	0	40.6 31.6
012-3	0	0.3	9.2	0.3	7.7	0.5	1.4	0	19.4
913-4	о. 4 Т.	0.3 T.	0.9	10.3	20.6	5.2 T.	2.0	0	39.4
914-5	Т.	T.	4.1	7.0	5.1	Т.	6.1	0	22.3
915-0	0	0.2	6.7 9.5	4.8 13.1	30.3	33.0	4.2 9.1	T.	79.2
017-8	0	2.2	7.0	13.8	5.7	12.9	4.2	0	54.2 45.7
1918-9	0	2. 2 T.	8.4	4.1	6.2	2.4	4. 2 T.	0	21.1
919-0	0	0.2	2.9	24.8	32.5	11.0 T.	2.0	Т.	73 • 4
920-1	0	1.8	5·5 4·4	3.6	23.2	10.1	Т.	0	34.1
(922-3	o		14.7	28.0	14.3	10.6	3.3 T.	o	68.5
923-4	0	0.9 T.	3.0	8.5	10. 4 T.	7.4 T.	3.0	0	32.3
924-5	T.	о. 5 Т. Т.	0. 2	20.7		T.	3.0 T. T.	0	21.4
925-0	0	T.	0.5	7•4 16. I	27.6	0,6	0.2	0	38.3
927-8	0	0.5	<sup>24. 2</sup> T	5. I	19.2	6.5	0, 2 T.	0	60, 3 20,8
928-9	T.	1.4	4.6	13.5	21.4	4.0	0.6	0	45-5
929-0	T.	3.0	10.6	7.7	9.5	0.6	T. T. T.	0	31.4
1031-2	0	O. I T.	7·7	11.7 6.2	14.0	7.3 5.8	т. Т	0	40.8
1932-3	0	Т.	8.6	1.3	20.6	5. I	5.0	o	40.6
1933-4	_ 0	2.0	15.6	0.8	32.9	10.5	5.0 T.	0	62.7
1934-5	T.	T. 1.0	1.6	26.7	13. I 12. 6	2.I 2.9	I.9	0	45.4
(036-7	0	4.4	0.7	12.7	T.	1.9	T. T.	0	9.0
1937-8	o	0.3	4.6	29.6	10.0	0.3	0.9	0	45.7
1938–9	0	10.0	1.3	7.5	4.7	10.5	0.2	0	40.2
1939-0	T.	1.0 8.5	6 5	4.6	23 8	0.3 13. I	I.5 0	T.	37·7 47.8
1941-2	T.	Т.	4.5	8.2	6, 2	7.9		0	24.0
1942-3	0	T. T.	6.8	26.4	4.5	7.9 8.0	I. 5 T.	0	45.7
1943	0	T.	0.3						
Means	T.	1.7	7.4	11.8	12.4	7.4	2. I	T.	42.8

## Hours of Sunshine

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1893	-	161	221	212	219	222 1	289	241	231	219	184	130	
1894	135	159	222	208	260	286	340	275	216	165	143	148	2556
	143	218	215	202	287	254	253	259	255	208	110	123	2557
1895		167	208	246	263	260	235	262	191	132	110	184	2412
1896	155							270	258	230	119	132	2370
1897	136	159	165	227	196	258	220						
1893	164	142	194	174	195	234	252	242	266	171	126	153	2316
1899	185	160	163	292	292	323	316	210	216	150	164	180	2652
1900	154	146	237	234	232	311	320	261	225	146	120	142	2527
1901	134	208	158	106	212	332	266	223	218	236	134	121	2349
1902	152	170	187	175	295	295	253	304	190	196	120	142	2479
1903	149	174	203	261	347	183	300	249	2-9	212	150	168	2715
1904	151	164	197	211	281	249	277	262	229	154	141	107	2452
1905	150	188	224	261	298	268	319	271	191	224	179	127	2700
1906	144	192	2:23	254	307	293	289	292	271	173	130	81	2649
1907	91	141	192	204	211	284	336	312	159	199	103	129	2363
1908	171	186	196	254	267	366	314	255	243	206	166	138	2760
1909	102	155	223	237	283	361	374	314	213	225	119	157	2763
1910	123	171	259	236	233	259	338	282	208	210	101	127	2547
1911	110	141	238	300	329	306	228	281	241	175	171	135	2764
1912	136	202	238	234	281	390	339	301	224	226	170	160	2902
1913	141	203	193	236	272	353	335	287	224	90	150	140	2623
1914	106	192	166	217	252	279	254	201	274	209	148	122	2419
	134	166	292	220	299	291	275	256	275	200	160	138	2705
1915	149	144	228	206	274	278	260	306	275	232	160	167	2678
1916		171	224	204	214	257	306	307	267	186	193	112	2558
1917	118				311			264	207	165			2508
1918	165	170	248	250		304	271				143	110	
1919	134	213	173	185	276	330	301	260	193	134	125	126	2451
1920	147	143	237	183	252	238	343	246	226	225	88	152	2484
1921	163	159	210	174	288	332	274	339	269	224	94	132	2659
1922	172	114	178	248	332	251	294	224	252	214	139	96	2514
1923	116	160	193	241	291	281	255	286	2:22	200	145	118	2512
1924	162	199	234	224	225	289	347	275	222	251	171	122	2723
1925	141	156	210	261	274	311	301	294	209	145	160	134	2596
1926	106	126	211	236	283	270	268	200	215	196	160	130	2401
1927	133	118	255	343	218	306	241	233	266	253	132	152	2651
1928	191	201	247	279	262	249	298	242	193	230	105	171	2669
1929	171	162	211	182	326	346	367	296	205	193	136	118	2712
1930	113	181	236	293	271	306	274	294	275	195	155	130	2724
1931	208	170	193	275	254	268	244	240	243	223	149	125	2622
1932	96	137	222	257	338	291	343	339	268	174	165	150	2780
1933	175	207	195	197	282	289	291	239	200	218	149	95	2537
1934	118	183	237	278	311	287	256	241	120	187	130	140	2518
1935	142	132	225	162	254	207	248	267	163	251	90	126	2265
1935	175	167	204	192	320	289	369	254	212	198	148	115	2543
1937	121	163	236	208	244	244	309	257	259	162	141	150	2492
1937	121	114	176	233	279	302	242	326	213	178	160	126	2470
	119	135	180	177	276	295	325	260	230	150	170	108	2425
1930	174	153	214	197	221	275	293	305	224	213	96	93	2459
1940	127	170	217	257	262	259	243	294	290	205	217	125	2666
1941		188	183	214	160	208	262	281	214	215	129	110	2346
1942	181			240	255			211		140			
1943	133	166	222	240		315	255		192	140	158	155	2473
Aver'.	143	166	212	227	268	284	291	270	228	196	142	131	2561
Posble	295	†297	371	401	452	455	461	429	374	343	295	284	4 457

<sup>†</sup> Leap years not considered.

## EXTREMES OF BAROMETRIC PRESSURE, 1872-1943 Sea Level Pressure

			Р	RESSUR	Έ		
MONTH	Aver- age	Maxi- mum	Year	Day	Mini- mum	Year	Day
January February March April May June July August September October November December	30. 01 30. 08 30. 06	31. 00 31. 03 31. 02 20. 72 30. 63 30. 57 30. 51 30. 48 30. 65 30. 75 30. 87 30. 96	1920 1920 1943 1911 1936 1884 1892 1934 1888 1879 1932 1887	31 1 9 12 22 15 7 31 7 3 28	28. 67 28. 69 28. 45 28. 86 29. 11 29. 26 29. 21 29. 26 29. 29 28. 97 28. 73 28. 49	1913 1895 1932 1907 1929 1923 1932 1932 1924 1938 1925 1873 1942	3 8 7 9 3 27 2 26 21 25 18 2
Average or Extremes	30.01	31.03	1920	Feb. 1	28.45	1932	Mar. 7

## Maximum Amounts of Precipitation

Month	5 mi	n's	10 m	in's	15 m	in's	30 m	in's	ı ho	ur	2 ho	urs	24 ho	urs
	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.
Jan	.20	1942	.25	1936	.29	1936	. 40	1936	. 57	1919	.81	1919	3, 25	1881
Febr.	.10	*1926		*1918		1920		1920		1920		1920		1886
Mar.	. 15	1913		1913		1913		1913		1932		1932		1877
April.	. 13	1936		1921		1920		1920		1931		*1931		1921
May	.55	1932		1932		1932		1932		1926		1926		1920
June.	.42	1925		1905		1905		1941		1942		1942		1875
July	.50	1927		1916		1916		1916		1921		1915		1921
Aug.	. 55	1908		1908		1908		1908		1901		1917		1879
Sept.	.25	1902		1927		1927		1911		1904		1904		1933
Oct.	.34	1925	.54	1928		1928		1906		1906		1906		1895
Nov.	.21	1925		1932		1927		1932		1932		1927		1876
Dec	. 15	1937		1937	.26	1937		1937		1937		1937		1937
High- est	.55	*1932	.91	1908	1.12	1908	1.45	1908	1.80	1901	2. 45	1915	6.04	1921

## MONTHLY AND ANNUAL PRECIPITATION.

						(2)							
Year.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug	Sept	Oct.	Nov	Dec.	An'l.
1041.	Ja	€ :	Z	< □		ب	15	Y	ĬŽ.	Ŏ	Z	A	¥
								1		1	(	(	
1818	2.64	3.49	4.05	6.15	5.96	3.47	4.08	0.46	7.81	2.11	1.91	0.86	42.99
1819	0.70	2.27	6.21	3.74	3.06	3.56	2.02	4 - 38	5. 29	1.40	I.22	1.63	35.48
1820	3.12	4.25	4.90	0.45	5.08	3.42	4.19	5.15	2.43	5 • 39	3.00	2,80	44.18
1821	1.41	4.42	2.53	4.90	4.84	2.79	2.35	1.58	4.73	2.29	3.12	1.93	36.89 <b>27.20</b>
1822	3.00	2.34	2.02 7.72	2.99	0.78 6.40	3·54 0·93	4·3 <sup>2</sup> 5·74	1.20	1.95	2·53 3·95	1.92	6.93	47.30
1824	3.95	5.99	1.81	4.72	1.43	1.60	0.88	3.68	6.43	1.01	1.72	2.80	36.02
1825	2.79	3.43	4.70	0.37		4.77	1.24	5.62	2,66	3.21	0.81	4.38	35.34
1826	2.55	1.48	3.81	1.50	1.36 0.25	3.85	2.90	5.62 12.10	3.03	3.80	2.31	3.56	41.14
1827	3.92	2.97	2.51	4.75	5.34	2.56	2.59	4.88	4.81	5.28	5.71	3.59 0.26	48.91
1828	2.15	2.79	1.84	2,00	4.67	1.59	4.58	0.37	3.82	2.79	5.55		32.41
1829	4.93	5.62	4.30	3.45	2.71	1.64	6.98	4.95	2,62	1.65	5.74	2,26	46.85
1830	2.36	1.63	3.51	1.21	3.43	3.46	4.90	2.64	5.65	2.38	5.32	5.96	42.95
1831	4.44	3.68	3.07	6.97 5.56	3.65 7.27	4·32 0.50	5·53 3·41	5.57	3.83	4.42	3.20	2.93	51.61
1833	2.96	2.53	2.71	2.30	1.03	3.23	2.01	0.82	2.88	6.00	5.53	5.86	37.86
1834	1.39	1.13	0.96	2.93	6.33	3.09	7.71	2.47	3.71	4.62	2.90	2.36	39.60
1835		1.37	4.27	4.54	2.07	2.74	9.07	2.89	1.31	1.87	2.08	2.40	37.86
1836	3·25 8·84	3.57	2.90	1.58	1.85	4 · 33	2.12	1.53	0.54	4.04	5.43	4.13	40.86
1837	4.10	4.14	3.02	3.07	5.79	2.98	1.80	1.67	0.56	1.58	2.35	2.46	33.52
1838	3.07	2.77	3.09	2.62	3.32	2.55	I.20	4.26	9.87	5.02	3.95	0.80	42.52
1839	0.98	3.11	1.18	7.73	4.27	2.25	3.32	5.70	2.00	2.50	11.52	6.35	41.10
1840:.	5.12	2.57 1.60	4·55 3·50	4.60 8.82	2.23	2.78	2.93	4.00	2.12	4.4 <sup>8</sup> 3.80	11. <b>63</b> 4.55	4.15	49.16
1842	0.80	3.20	3.35	3.50	2.90	5.30	1.82	4.44	3 - 25	0.80	4.45	5.30	39.11
1843	2.20	6.08	6.17	3.88	1.60	4 61	2.15	6.88	0.98	4.82	3.40	3.92	46.69
1844	3.68	2.42	6.00	0.20	2.72	1.40	2.17	2.62	3.53	5.80	3.15	. 3.85	37.54
1845	4.58	4.25	3.83	1.23	2.82	2.05	3.28	1.82	2.23	4.00	10.25	5.98	46.32
1846	3.12	2.95	2.73	1.23	2.02	2.25	2.51	1.80	1.30	1.35	4.17	4.52	29.95
1847	3.28	4.70	4.77	2.20	2.03	4.09	2.65	6.45	6.64	1.05	5.12	3.95	46.93
1848	2.30 0.35	3.90	4.05 7.35	0.90	6.30	I.73 I.45	0.85	3.10	3.55	5.10	2.25	5.95	40.98
1850	4.59	2.52	5.32	4.82	6.63	2.77	2.70	5.30	7.15	2,10	5.50 3.32	6.76	53.98
1851	1.30	4.20	3.88	9.37	3.31	1.80	3.09	1.27	3.50	4.43	5.51	2,65	44.31
1852	4.85	2.85	4.45	10.18	1.95	2.35	3.28	7.63	1.65	2.19	3.47	3.09	47.94
1853	2.44	5.30	2 27	3.78	5.63	0.30	3.64	9 40	3.80	3.92	4.43	3.95	48.86
1854	2.91	4.87	2.84	6.63	4.33	2.47	3.70	0.58	3.86	2.08	6.80	4.64	45.71
1855	7.22	4.67	1.18	4.28	1.20	3.09	4.15	1.46	1.13	4.61	5.27	5.93	44.19
1856	5.32	0.80	3.09	4.37 10.83	7.10	2.90	4.02 5.53	7.18	4.90	2.70	3.33	4.28 5.26	52.16
1858	3.28	2.30	2,18	5. 18	3.89	8.09	4.56	7.03	2.56	4.50	2.52 3.38	4.73	52.67
1859	5.93	4.05	7.64	3.36	3.63	7.89	1.58	4.72	4.40	3.28	3.75	6.47	56.70
1860	1.89	3.85	2.19	1.73	2.35	8.01	5.90	4.30	7.35	2.66	5.37	5.86	51.47
1861	6.04	3.57	7.48	5.89	2.97	3.64	2.76	6.04	1.77	2.66	4.90	2.35	50.06
1862	8.30	3.29	4.70	1.97	2.70	6.78	7.33 12.38	4.20	5.61	4.85	8.32	3.01	61.06
1863	4.51	4.54	6.42	9.08	2.82	2.56		5.64	3.12	3.83	6.48	6.34	67.72
1864	3.87 4.47	1.43	11. <b>75</b> 4.83	4.72	6.90	2.83	1.90	4. I7 I.42	0.62	4.80 6.21	4.00	5.28 4.18	49.30
1866	3.73	5.08	4.70	2.03	5.04	3.41	5.42	3.87	5.90	2.72	3.74	4.86	50.70
1867	6.06	6.55	6.12	2.52	4.11	2.74	4.76	10.78	0.44	6.76	2.32	2.48	55.64
1868	6.09	1.88	5.04	6.94	10.38	3.79	1.10	7.53	11.95	1.78	5.31		64.11
1869	4.03	9.98	8.74	2.05	6.88	4.44	3.30	2.19	5.18	6.71	3.74	9.04	66.28
1870	8.16	7.03	4.88	8.42	2.58	7.59	4.01	1.57	0.67	6.80	4.40	3.62	59.73
1871	0.92	2.63	4.55	3.79	4.34	5 - 55	3.22	3.08	1.30	5.88	6.42	3.38	45.06
1872	2.11	2.31	4.05	1.31	3.29	4.84	4.00	6.21	6.04	4.85	3.66	3.09	50.23
10/3	5.76	3.21	3.76	3.83	5.16	0.54	3.84	0.21	2.91	5:33	8.34	5.04	54 • 53

## MONTHLY AND ANNUAL PRECIPITATION-Continued.

	11	IONT.	ILL I	AND	AMM		PREU	11 11.		M — 001		cu.	
Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	An'l.
-Cm.	4 22	3.41	1.60	7.97	3.71	3.94	3.47	6.67	2.05	1.39	2.85	2.14	42.50
1874 - 1875	4.32 3.68	3.74	5.04	4.92	3.76	7.25	3.47	3.50	3.12	4.99	5.47	0.75	43.5
876	1.87	4.54	7.19	3.61	2.70	1.72	5.86	1.23	3.84	1.65	11.03	3.71	48.9
877	3.33	0.45	9.79	4.19	3.38	3.21	2.27	4.49	0.60	8.84	9.62	1.32	51.4
878	7.60	4.40	5.91	6.14	1.03	2,28	4.58	7.66	3.47	6.76	8.94	6.76	65.5
1879	2.79	4.35	3.90	6.58	0.97	6.24	3.09	6.71	1.84	0.91	2.97	4.22	44.5
880	3.72 7.21	4.11	3.25 9.86	2.85 1.66	4.16	0.75	6.86	2.90	2.36	3.15 2.84	2.30	3.42 3.80	37 • 3
881 882	3.68	4.77	3.35	2.50	6.05	7.79 1.03	3.91	1.46	10.93	2.29	3.73	2.65	52.6
883	3.59	2.74	2.33	2.83	5.11	2.07	2.73	0.39	1.50	6.40	2.08	3.71	35.4
884	6.27	5.74	4.86	4.76	3.31	1.01	4.25	5.01	0.31	3.17	3.03	4.46	49.1
885	5.33	3.00	1.15	3.30	4.26	3.70	1.44	7.64	1.70	5.71	5.78	2.09	45.1
886	7.08	7.04	3.20	1.70	3.68	1.34	1.81	3.64	2.73	3.27	3.59	3.66	42.1
887	4.86	3.69	3.86	2.62	··67	1.98	3.59	3.05 6.53	0.97 6.77	2.53	2.22	2.71	33.7
SSS	4.11	2.36	3.32	3.07	5.20	2.69	5.80	3.95	3.19	3.58	4.97 4.91	4.38 1.83	45.8
890	2.00	2.29	5.88	2.29	4.48	2.21	1.03	2.70	5.04	3.31 5.63	0.97	3.72	39.1
891	4.39	3.66	3.94	1.71	1.56	3.06	3.73	3.87	2.29	5.56	2.35	3.58	39.7
392	4.62	2.15	3.91	0.93	5.15	3.05	2.56	4.87	1.90	2.31	4.45	1.12	37.0
893	2.56	6.22	2.80	3.13	5.23	2.20	1.72	6.46	1.59	2.94	1.83	5.16	41.8
894	3.01	3.15	1.01	3.78	4.12	0.80	3.09	3.03	2.14	5.11	3.10	4.28	36.6
895	3.79	1.11	2.72	3.65	2.71	1.73	2.98	3.24	1.53	6.19	8.07	2.45	40.1
896	2.25 3.16	3.91	5.41	1.56 3.17	1.68	2.71 4.46	2.90 4.22	2.15 3.95	2.38	3.15	3.70 6.19	3.92	37.5
897···	3.50	4.81	1.82	6.39	4.33	1.60	4.42	6.38	1.93	7.17	5.32	2.19	49.8
899	4.19	3.03	5.95	1.29	0.81	2.86	2.52	2.52	5.09	2.40	2.51	1.52	34.6
900	4.20	6.83	4.60	1.90	5.07	1.85	2.69	2.46	4.62	3.41	4.17	2,25	44.0
001	1.56	0.66	6.58	7.43	6.31	1.31	5.20	3.25	2.50	3.02	2.41	8.49	48.7
902	1.65	4.19	5.29	2.87	1.07	1.77	2.88	2,20	2.08	4.36	1.09	4.48	33.9
903	3.43	3.90	5.95	4.43	0.32	7.19	2.99	3.33	2.43	3.95	1.48	2.57	41.9
904	4.80	2.49	2.43	9.14	3.38	2.06	1.23	2.19	5.57	0.82	1.70	2.52	39.6
905	4.09 2.96	2.66	2.25	2.14	1.47 4.91	5.23	5.38	3.39	5.10	3.88	2.55	3.23	32. C
907		1.88	1.66	3.31	3.12	2.56	1.09	1,10	7.43	2.54	6.02	4.31	37 - 5
908 .	2.47	2.96	2.97	1.70	3.78	1.08	3.17	4.35	0.68	3.70	0.74	2.47	30.0
909	3.94	4.71	3.28	3.92	2.33	4.45	0.97	3.55	5.15	1.07	4.11	3.19	40.6
910	4.25	3.44	1.25	2.22	1.62	4.89	1.15	0.98	2.14	1.14	3.75	2,10	28.3
19!1	2.28	2.85	2.95	2.28	0.35	3.67 0.27	4.65	4.17	2.95	2.27	4.29	3.07	35 - 7
1912	2.87	2.38	4.18	3.07	4.04	0.64	5.16	2.56	1.67	6.04	2.61	5.36	34·5 38·1
1913	2.38	2.99	4.81	4.77 5.87	3.22	1.40	2.64	3.20	0.21	1.54	2.72	3.46	34.3
1915	6.33	3.47	4.16 T.	1.86	1.64	1.39	8.85	5.63	0.69	2.82	2.14	3.94	38.7
1916	1.23	5. 8	3.20	4.51	2.83	5.04	5.67	2.19	1.90	0.94	1.67	3.00	37.3
1917	2.82	2.67	3.73	2.72	4.45	4.05	1.10	7.06	1.91	5.33	0.59	2.56	38.9
1918	3, 11	2.30	3.19	3.08	1.99	1.94	2.64	1.56	9.19	0.99	1.20	3.21	34.4
1919	3.62	2.66	4.11	2.33	4.25	1.08	4.63	5.07	5.83	2.13	5.36	1.63	42.7
1920	2.72	5.88	3.72	5.68	5.26 3.64	5.78	1.56	1.63	I.90 I.22	1.64	5.46	3.89	45.8
1921 1922	2.24 1.41	2.64	1.92	2.48	5.34	3.58 8.05	2.63	4.75	3.66	1.24	0.19	2. 35 3. 0I	41.1
1923	6.07	1.48	2.49	5.26	0.83	2.03	3.36	1.86	0.38	3.37	2.78	4.98	34.8
1924	3.27	2.61	2.04	3.79	2.81	1.07	2.04	6.86	6.96	0.06	1.93	1.48	34.9
1925	3.97	1.55	5.21	2.48	2.07	4.59	3.54	1.40	3 • 45	4.03	3.66	5.20	41.1
1926		5.56	2.91	1.73	3.31	1.33	6.06	3.91	I.oS	3.58	4.07	3.96	40.0
1927	2.67	3.28	1.19	1.36	2.50	2.43	4.77	6.73	2.43	3.77	4.71	5. 23	41.0
1928	1.66	2.66	2.80	4.68	3.08	5.56	4.14	2.45	4.47	2.88	1.85	2.61	37.6
929	2.77	2, 23	3.02	7.52	3.39	2.30	3.36	3.03	0.76	5.83	3.01	2.99	37 - 35 - 3
931	4.09	4.21	4.66	3.12	4.51	9.13	2.43	4.45	1.67	2.18	0.82	2.99	44.
932	4.24	1.74	5.28	1.67	1.63	2.05	2.10	4.24	4 50	7.18	5.24	1.78	41.
933	2.04	3.77	6.80	7.37	2.74	1.22	2.63	3.41	10.94	3.11	0.65	2.93	47.
934	2.67	4.45	4.04	3.21	1.56	3.11	1.25	1.83	5.67	2 94	1.78	1.64	34 •
935	6.13	3.26	1.52	4.77	1.35	5.07	1.10	2.14	2.69	0.34	3.91	0.66	32.
1935	6.46	3.66	6.40	3.54	1.70	2.37	1.04	5.15	3.79	2.67	4.66	8.19	46.
937…	3.93	2.38	3.57	5·34 3. 22	2.52 4.42	3.47 6.30	9.46	4.97 3.31	6.00	3.95	2.89	5.09 2.80	43.
	2.18	3.79	5.23	4.54	1.29	2.70	0.75	2.14	1.01	4.77	1.14	2.91	32.
1940	1.68	4.79	3.83	4.58	3.28	1.80	3.17	0.85	2.32	0.76	6.24	2.76	36.
1941	4.21	1.70	3.40	1.70	2.43	4.29	2.90	1.55	1.18	1.92	2.40	3 19	30.8
1942	3.69	3.45	7.01	1.59	2. II 4.56	4.24 1.49	4.14	1.28	1.96 1.41	2.78 4.82	4.69	4.72	42, 4 32, 2
1943 M'ns	*3.57	3.26	3.83	-				-					40.8
M'ns	13.63	3.42	3.98	3·54 3·75	3.13	3.14	3.48	3.60	3.14	3.30	3.57 3.83	3.36	43.0
	NOTE	Bold	d food	d firm	oc ind	ionto	muon to	et en	d lone	t mor	thly	and or	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

Note.—Bold-faced figures indicate greatest and least monthly and annual amounts, \* Computed from the Weather Bureau records of 73 yrs. † Averages 126 yrs.

From 1818 to 1822, Dr. Enoch Hale; from 1823 to 1865, Jonathan P. Hall; from 1866 to 1870, Superintendent of Sewers.

Degree Days

Season	July	Arg.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Sen.
1923-24 1924-25 1925-26 1925-26 1926-27 1928-29 1928-29 1929-30 1928-31 1930-31 1931-32 1932-33 1933-34 1933-35 1936-37 1937-38 1938-39 1939-40 1938-39			88 85 165 145 145 145 22 83 75 130 117 70 109 61 127 107 28 117 73 55 53 126 122 128 118 119 119 119 119 119 119 119 119 11	295 310 407 293 316 173 336 307 336 348 484 484 289 365 379 273 384 466 348 387 295 387 295 385 450 298 385 450 298 385 486 387 298 486 486 486 486 486 486 486 486 486 48	592 675 766 691 609 700 637 611 644 666 612 617 598 586 67 69 631 586 631 586 646 648	957 1007 12×1 988 1126 910 1040 1057 760 11052 973 819 11002 983 840 1184 1135 1176 953 923 1046 953 923 1132 1097	987 1079 1361 1983 1396 1020 1172 1173 1027 1171 1053 1069 991 1118 1080 1049 1142 1295 1142 128 1132 1226	1142 1096 1065 907 1085 909 921 1165 1113 754 1081 995 1081 986 997 874 1332 1040 1224 891 1040 1029 998 1063 967	1066 862 876 752 795 582 954 7786 867 867 788 990 910 9910 992 823 711 954 749 990 981 749 990	582 681 514 600 401 519 533 463 601 510 548 540 524 447 556 640 595 640 466 642 409 466 649	210 443 107 211 325 269 147 252 272 242 284 367 299 1*5 222 212 212 212 212 212 212 212 212 21	114 72 95 73 102 85 87 80 69 9 21 95 66 66 41 83 56 66 41 61 61 61 61 61 61 61 61 61 61 61 61 61	6033 6260 6637 64466 5053 5612 5612 5500 5246 6524 6524 6524 6524 6420 6135 5946 6420 6420 6440 6440 6440 6441 6441 6441 6441 644
**Normal	8	16	98	338	651	1000	1101	1027*	852	538	248	66	5943

<sup>\* 28 1</sup> days. \*\* Normals based on period 1899-1941.

Prevailing Wind Movement

Prevailing Wind Movement													
Wind	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
North per cent of time. hourly velocity		9 11	8 10	9	7 9	6 9	5 8	7 8	9 8	9	11 10	10 11	
Northeast   per cent of time.   hourly velocity		6 10	7 10	11 9	11 8	9	6	6	8	8	6 8	4 9	
East per cent of time. hourly velocity	11	6 9	10 9	14 10	17 8	16 8	13 6	15 7	12 7	8 7	5 10	4 9	
Southeast.   per cent of time.   hourly velocity	4 8	4 8	6 <b>8</b>	5 8	6 <b>8</b>	5 7	5 6	6	6	5 7	4 10	4 8	
South ( per cent of time. hourly velocity	6 9	7 8	8 11	7 11	10 10	9	9 <b>9</b>	9	9 10	9	7 10	6 10	
Southwest { per cent of time, hourly velocity	20 11	15 10	17 10	16 11	20 9	25 10	30 9	24 9	23 9	20 10	21 10	20 10	
West { per cent of time. hourly velocity	29 12	29 12	23 12	20 12	17 10	20 10	21 8	19 <b>9</b>	18 9	22 10	25 11	30 12	
Northwest { per cent of time. hourly velocity	22 12	24 12	21 12	18 11	12 10	10 8	1!	13 8	16 9	19 <b>10</b>	21 <b>10</b>	22 11	
Prevailing direction	w.	w.	w.	w.	sw.	sw.	sw.	sw.	sw.	w.	w.	W.	w.
Average hourly velocity	11	12	12	11	10	10	9	9	9	10	11	11	10

Daily Maximum	Temperature,	1943
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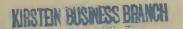
During Management of the Control of													
Date	January	February	March	April	May	June	July	August	September	October	November	December	
1	366 364 3428 19 29 29 29 27 32 35 39 30 34 47 35 36 20 15 15 17 34 47 47 45 28 30 30 31 43 44 45 45 45 45 45 45 45 45 45 45 45 45	41 32 35 48 37 40 34 32 34 33 30 34 31 42 37 40 37 40 38 40 40 40 40 40 40 40 40 40 40	40 34 27 22 44 47 40 26 53 49 60 41 40 63 49 49 40 63 49 49 40 40 40 41 40 40 40 40 40 40 40 40 40 40 40 40 40	52 61 38 47 52 34 43 39 51 46 46 46 46 47 50 60 41 44 45 51 44 43 43 43 43 43 44 45 60 60 60 60 60 60 60 60 60 60 60 60 60	54 56 56 68 66 77 76 58 55 56 69 60 58 60 73 68 60 73 68 60 73 76 69 60 73 76 60 77 70 70 70 70 70 70 70 70 70 70 70 70	70 88 96 74 89 77 66 67 71 76 66 80 71 84 82 91 82 91 97 87 88 95 95 97 87 88 98 98 98 98 98 98 98 98 98 98 98 98	74 75 80 76 771 75 80 80 85 85 85 88 89 92 84 85 87 90 93 85 87 90 86 86 86 87 70 78 71 70 70 70 70 70 70 70 70 70 70 70 70 70	83 94 90 96 77 96 88 82 77 9 68 68 68 71 70 81	78 65 66 66 70 82 83 75 70 66 66 66 68 85 66 85 66 68 69 62 61 75 80 66 66 66 66 66 66 66 66 66 66 66 66 66	64 68 63 55 58 67 67 80 64 81 54 55 56 65 54 67 72 65 54 55 55 58 59 57 72 55 56 56 56 56 56 56 56 56 56 56 56 56	53 61 56 52 53 64 56 66 67 50 46 47 44 42 37 44 42 37 44 42 37 44 43 58 58 58 58 58 58 58 58 58 58 58 58 58	43 511 48 43 47 41 41 41 42 42 42 42 43 46 47 41 41 20 35 42 43 44 44 41 41 20 35 42 43 43 43 43 44 44 44 44 44 44 44 44 44	
Mean	31.6	38.7	43.5	51.5	65. 7	81.4	82. 7	78.9	70. 6	60. S	50.1	37. 9	

Maximum temperature for year 97°, June 25th.

## Daily Minimum Temperature, 1943

Date	January	February	March	April	Мау	June	July	August	September	October	November	December
1	29 18 26 14 10 8 18 14 11 15 16 26 32 12 20 12 4 3 14 26 32 28 22 22 22 22 23 23 24 23 23 24 23 25 26 27 27 28 28 28 29 29 29 29 29 29 29 29 29 29 29 29 29	28 21 16 29 37 33 34 42 28 22 18 20 21 20 6 4 -14 12 22 34 40 36 39 35 18 19 21 22 19 21 22 31 31 31 31 31 31 31 31 31 31 31 31 31	30 27 10 6 20 27 20 15 8 24 38 38 38 32 34 30 29 38 34 32 28 44 45 27 27 33 32 34 45 36 36 37 37 38 38 38 38 38 38 38 38 38 38 38 38 38	35 38 26 24 34 21 20 32 32 40 33 33 28 35 36 36 40 46 48 46 41 41 42 24 33 25 28 35 36 36 37 36 36 36 36 36 36 36 36 36 36 37 37 38 38 38 38 38 38 38 38 38 38 38 38 38	37 35 42 45 41 46 55 34 49 45 55 53 49 45 45 47 57 62 47 47 46 46 49 46 46 55 55 55 56 56 56 56 56 56 56 56 56 56	56 57 70 62 62 57 50 49 58 56 56 57 62 62 62 62 62 62 62 62 62 62 63 64 64 64 74 64 74 64 64 74 64 65 65 66 66 66 66 66 66 66 66 66 66 66	53 56 61 62 65 65 64 56 66 56 67 70 71 71 73 73 65 65 66 62 65 66 67 70 65 65 66 66 66 66 66 66 67 67 66 66 66 66 66	64 711 732 61 63 62 62 62 62 63 63 63 63 63 63 63 65 65 65 65 65 65 65 65 65 65 65 65 65	64 60 60 60 60 67 68 63 61 62 49 46 48 59 48 59 59 55 55 55 55 55 55 55 55 55 55 55	53 58 51 42 45 445 445 448 445 45 58 45 50 49 48 45 45 46 75 68 68 68 68 68 68 68 68 68 68 68 68 68	38 45 45 42 39 39 47 42 47 47 39 35 37 35 37 32 31 33 32 29 28 37 42 36 35 32 37 39 38 28 42 28	27 33 39 34 28 29 26 29 26 40 34 8 10 12 12 12 27 27 27 27 24 20 3 8 18 19 19 10 11 10 11 11 11 11 11 11 11 11 11 11
Mean	19. 4	22.4	28. 4	35. 2	49.4	60.9	65. 5	63.1	55.3	46.7	36.5	21.2

Minimum temperature for year -14°, February 15th.



Daily Precipitation, 1943

Day	January	February	March	April	May	Jnne	July	August	September	October	November	December
2 3 4 5 5 6 6 7 7 8 9 10 11 11 12 13 14 15 6 16 17 18 19 20 21 22 23 24 25 26 26 27 28 29 30 31 1	* T.  * 50  * T.  * T.  * T.  * 16  * 16  * 10  * 20  * 11  * 20  * 11  * 20  * 11  * 20  * 11  * 20  * 11  * 20  * 11  * 20	*.11 *.09	*.37 *2.15 .01 *T03 *.01 .46 .20 .67 .10 *T.	*.01 *.01 *.01 *.01 *.01 *.01 *.01 *.01	54	.08 .10		.02 T. T. .08 T. .08 .33 .70 .02	.09 .24 T. T. T02 T01 .08	.32 .30 T.  T.  .04  .366 .74 .18 .10 .01 T01 T01 T01 .77 1.95 .03	* T.  *. 24 *. 45 *. 01  T.	* T. * T. * 10 . 59
Total	3.74	1.23	4. 02	2. 64	4. 56	1. 49	3.91	1.28	1.41	4.82	2. 16	0.99

T. indicates a trace. \*Wholly or partly snow.

## Daily Cloudiness, 1943 [Daylight hours; scale 0 to 10]

[Daylight hours; scale 0 to 10]													
Day	January	February	March	April	May	June	July	August	September	October	November	December	
1	8 5 1 10 8 8 0 1 1 7 7 1 1 7 7 3 3 3 3 3 10 100 10 10 4 4 9 9 10 9 10 9 9 10 8 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8 0 5 10 0 11 8 8 1 1 8 8 10 3 9 5 5 5 0 9 1 1 6 3 3 6 4 4 10 4 9 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6	8 9 10 1 2 10 3 4 4 5 10 10 9 10 10 6 10 3 8 8 3 2 2 7 6 6 2 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10	10 6 9 1 6 4 4 2 10 5 5 8 5 7 7 3 3 5 6 6 7 10 10 10 10 10 10 10 10 10 10 10 10 10	4 7 10 8 1 8 1 8 8 1 8 8 3 10 10 10 5 4 4 4 9 9 7 7 9 10 10 10 10 10 10 10 10 10 10 10 10 10	10 7 2 1 5 5 5 10 7 7 7 5 6 6 2 9 4 4 8 7 7 7 6 6 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9	4 1 6 10 10 8 10 9 9 5 9 9 7 7 1 5 6 6 1 1 5 5 6 6 4 9 8 8 8 9 9 6 6 7 1 7 1 7 1 7 1 7 1 7 1 7 1 7 1 7 1	1 2 8 8 10 9 9 2 6 6 7 9 10 8 9 9 8 8 2 8 3 5 5 3 1 1 8 5 5 1 6 6 5 5 5 8 6 6 5 2 3 3	10 10 10 10 10 9 8 4 4 10 1 5 5 3 1 1 6 6 9 9 5 9 9 10 9 9 10 9 9 10 9 10 9 10 9	10 10 10 9 8 8 2 2 3 3 9 2 2 0 0 0 1 1 0 7 7 10 10 10 7 10 10 10 10 10 10 10 10 10 10 10 10 10	1 10 8 6 9 5 3 10 10 4 10 1 1 6 6 10 3 1 1 8 10 6 10 10 10 10 10 10 10 10 10 10 10 10 10	2 8 10 4 1 9 6 0 9 8 2 10 4 10 3 4 4 3 2 2 4 9 9 0 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10	
Mean	6.5	5.5	6.8	6.3	6.9	6.1	6.5	5. 6	6.4	7. 1	6.2	5. 2	

Note.—Clear (0 to 3). Partly cloudy (4 to 7). Cloudy (8 to 10).

## U S. DEPARTMENT OF COMMERCE WEATHER BUREAU

## ANNUAL METEOROLOGICAL SUMMARY

WITH COMPARATIVE DATA

1947

BOSTON, MASS.

COMPILED BY W. H. TRACY

Observations at or near Post Office Building, 1870 through 1935; thereafter at East Boston Airport.

Einstein Pauliner, Til

(W. B. O. Philadelphia-2-16-48-1250)

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1		32º or below.	0 23	0 27	0 22	0	0	0	_		-	0	0 11	0 28	00 116
	Max. temp.	90° or above.				0	0		0	0	0	-			1
di di		32º OT Delow,	5   10	~ ~			9		9						3 27
Number of days.		Heavy fog.							_						26
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	 	Cloudy.	==	-6	=	16	16	=	14	7	6		15	6	170
		Partly cloudy.	=	10	13	9	10	13	=	10	- 2	9	9	9	107
		Clear.	9		1-	<b>x</b>	5	9	9	14	16	16	6	16	118
		Gales (32 miles)	en-	_	9	2	0	0	0	_		2	ಣ	1-	56
	st.	Date.	31	4	က	27	27	14	28	56	22	31	œ	56	Mar.
7	Highest.	Direction.	SW.	se.	e e	SW.	SW.	sw.	sw.	ne.	SW.	ne.	se.	ne.	• •
Wind.		Velocity.	41	36	20	9	30	88	3.5	47	32	9	4.5	5	98
	.noite	Prevailing direc	₩.	.W.	W.	SW.	sw.	SW.	SW.	sw.	sw.	sw.	nw.	nw.	SW.
	-91	Average hourly, locity.	12.2	14.7	13.4	13.8	12.2	12.0	10.8	9.7	10.6	10.9	12.7	13.3	12.2
ae -	ble.	Percent of possi	51	89	67	28	52	64	62	74	65	80	99	71	64
Sun- shine	·s	Number of hour	150	202	250	233	236	290	289	317	245	273	165	200	2850
		Snowfall.	4.0	9.0	0.9	0.6	0	0	0	0	0	0	1.	26.8	42.4
ation.		Date.	20	21	2-3	2-3	2-3	24-25	22-23	26-27	2	30-31	11-12	23-24	Nov. 11-12
Precipitation.	·s.m	od ts ni testesta	0.91	0.95	1.79	1.24	1.30	1.17	1, 54	1.09	2.71	0.66	3.32	1.38	3. 32
F.		Total.	2.45	1.44	2.30	4.15	4.36	2.88	3.98	2.19	3.95	1.13	5. 13	3, 95	37.91
Λe	t.)	.m .q 08: 7	99	55	22	65	99	67	71	92	7.3	99	67	09	99
Relative	numidity per cent)	1:30 p. m.	62	84	84	53	59	54	28	99	99	84	28	52	55
Ž,	ed)	7:30 a. m.	92	65	89	99	7.5	72	9/	81	17	77	17	29	72
		Date.	6	50	-	28	10	4	21	2	28	-	30	14	Feb.
	nes.	Lowest.	<b>x</b>	œ	22	30	36	46	69	54	37	38	52	12	<b>x</b>
Temperature.	Extremes.	Date.	31	14	24	12	13	53	900	13	12	17	က	25	Aug.
pera		Highest.	61	53	99	22	87	68	8	66.	88	68	59	09	66
Tem		Monthly.	32.6	29.6	37.7	47.2	6.99	65.4	74.4	73.2	64.8	61.6	41.2	30.4	51.2
	Mean.	Minimum.	24.3	21.4	30.4	38.6	6.74	56.3	66.5	64.5	1.99	9.19	34.7	23.0	42.9
		.mumixsM	40.9	37.8	45.0	55.7	62.9	74.4	82.3	81.8	73.4	21.5	47.7	37.9	59.5
		Month.	January	February.	March	April	May	June	July	August	September	October	November	December.	Year

Elevation of instruments above ground: thermometers, 33 feet; raingage, 3 feet; anemometer 62 feet.

# COMPARATIVE DATA AND EXTREMES

	BOSTON, MASS	SACH	USETTS	
1	Minimum temp.	59		60
	Minimum temp.	59	25 10 10 10 10 10 10 10 10 10 10 10 10 10	106
	Max. temp. 900 00 above	59	00000044H000	6
days	Dense fog	38		Ξ
r of	Thunderstorms	388	xxx 3/ 20 10 4 6/ xx xx xx	18
mpe	Snow (trace of	57		45
ze nu	Rain, .01 or more	11	202111200	125
Average number of days	Cloudy	63	13 10 10 10 10 10 12 13 13	18 118 118 129 125 42 18 1
¥	Partly cloudy	63	989052981190	118
	Clear	63	000000000000000000000000000000000000000	118
	Gales (32 miles (1970 to 100 t	35	4 0 0 0 H www.www.H 0 0	
	Zeat	1.	1945 1942 1938 1938 1947 1947 1947 1948 1948	1938
pu	Direction highest	12	s s s s s s s s s s s s s s s s s s s	<b>s</b> c
‡ Wind	Highest velocity	77	\$0.0044488446484 \$0.004448844648	73
	Prevailing direc-	09	W. W. S. W.	. W
	Average hourly velocity	09	47.010.00.01.010.01.010.010.010.010.010.0	11.5
ine	Percent	54	652 652 653 653 653 653 653 653 653 653 653 653	57
Sunshine	Total hours	54	220 220 220 220 220 220 220 220 242 142 142	2562
re ity nt	.m.q 8	40	69 27 27 27 27 27 27 27 27 27 27 27 27 27	12
Relative humidity per cent	Noon-local time	30	62 62 62 62 63 63 64 65 65 65 65 65 65 65 65 65 65 65 65 65	59
Pe Pe	8 a. m.	40	2126922124484	73
	7627	77	1897 1921 1891 1917 1917 1884 1909	1921
_	[[8]wons testesto stund 12 ni	77	14. 7 16. 5 12. 0 12. 0 0 0 0 0 0 0 0 12. 0 12. 0 12. 0 12. 0 12. 0 12. 0 12. 0 12. 0 12. 0 13. 0 14. 0 15. 0 16.	16.5
atio	Average snowfall	12	1.5.000 1.5.0 1.6.000 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1.5.00 1	43.0
Precipitation	Year	11	1881 1886 1877 1920 1921 1921 1933 1895 1876 1937	1921
д	Freatest in 24 smod	72	6.4.6.6.6.6.4.4.6.6.6.4.4.6.6.6.4.4.6.6.6.6.4.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6	6.04
	Kormal	20	6.20.00.00.00.00.00.00.00.00.00.00.00.00.	40.14
	Zear	77	1882 1934 1872 1874 1879 1940 1914 1936 1875	1934
	Absolute lowest	11	811 8 1 1 2 2 3 4 5 2 1 1 1 2 3 4 5 5 1 1 1 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1	-18
ıre	Year	77	1876 1930 1945 1938 1925 1911 1944 1881 1981 1931	1161
erati	Absolute highest	17	70 88 88 89 100 100 100 100 100 100 100 100 100 10	104
Temperature	IsmtoV	46	27. 28. 8 35. 6 46. 4 66. 5 71. 7 71. 7 69. 9 82. 0 82. 0	49.6
8	Vlish 928197A muminim	59	22.22.20.02.20.02.20.00.02.20.00.00.00.0	41.6
	Vlisb 928197A mumixsm	59	35.8 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6 36.6	57.6
	Month	L'gth of	years. Jan. Feb. March. April May June Juny August Sept October Nov	Year

# Anemometer, 62 feet above ground: October 1933 to December 1935, anemometer 360 feet, record not used. § Less than 1. \* Has occurred on previous date.

Monthly and Annual Mean Temp
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Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept	Oct.	Nov	Dec.	An'l
1840	20.0	30.8	34-4	48.4	55.6	66.2	71.8	70.3	59.9	49.5	36.6	24.7	47.4
1841	27.9	22.3	33.1	41.1	53.2	67.4	69.8	68.5	62.3	44.6	36.4	30.0	46.4
1842	27.2	31.6	37 • 4	44.4	51.7	62.6	72.7	67.5	58.2	47.9	34.8	23.5	46.6
1843	29.7	16.8	25.4	43.5	54.5	64.2	69.2	69.9	60.6	47.5	34.3	26.9	45.2
1844	15.4	24.6	33.8	48.4	57.4	65.1	68.2	67.8	64.0	45.5	34.3	27.0	46.0
1845	27.2	27.6	36.2	46.3	56.6	68. I	72.1	71.3	60.2	51.8	44.3	25.6	48.9
1846	27.4	21.3	38.2	49.5	55.8	65.0	71.6	70.2	66.7	51.2	43.2	27.4	49.0
1847	26.4	25.9	30.8	42.0	53 • 4	64.7	73.0	68.1	61.0	47.7	44.I	34.8	47.7
1848	29.1	24.7	32.2	45.5	57.8	64.8	70.2	69.6	58.6	49.8	36.2	34 - 4	47.7
1849	21.0	18.4	35.8	43.5	52.5	67.7	71.6	69.2	60.0	49.2	45.0	28.9	46.9
1850	27.2	29.4	32.6	42.4	51.4	67.2	71.6	67.0	61.0	51.4	41.0	25.2	47.3
1851	25.5	29.9	36.2	44.5	55.5	64.8	71.4	68.0	61.1	52.9	34.8	22.9	47.3
1852	20.8	27.4	32.9	41.0	56.8	67.4	72.4	66.6	62.1	50.4	38.3	35.0	47.6
1853	25.8	29.2	35.8	45. I	56.4	66.8	70.6	67.5	61.2	47.8	39.6	26.4	47.7
1854	23.9	23.5	32.4	42.3	58.7	65.6	74.4	68.4	61.5	52.5	41.2	24.4	47 - 4
1855	28.4 16.8	20.2	32.3	44.I	53.4	65.5 68.1	72.2	67.3	61.4	51.5	38.7	28.6	47.1
1856 1857	15.2	20.9 33.6	27.0	41.8	52.6	63.4	72.7	68.2	62.0	51.3	41.3	24.0	45.5
1858	30.9	22.2	32.9	45.2	54·7 52.9	67.8	69.9	66.6	61.8	53.0	35.3	33.2	47 - 4
1859	25.4	28.5	38.6	42.9	58.1	64.2	69.7	68.0	58.8	46.5	42.0	24.4	47.I 47.3
1860	27.7	25.8	38.4	14.2	56.1	65.4	68. 1	69.5	59.7	50.8	43.4	26.6	48.0
1861	23.0	32.6	35.0	44.3	54.5	65.9	71.9	67.6	62.0	54.2	38.4	30.6	48.3
1862	22.9	22.7	32.7	44.0	58.3	63.6	69.3	70. I	60.1	53.0	40.0	27.6	47.0
1863	28.8	25. I	27.2	44.2	59.1	65.3	73.2	73.2	60.3	51.9	42.3	25.7	48.0
1864	25.0	27.4	34.4	42.I	56.4	67.8	73.6	73.3	60.1	47.8	39.6	27.4	47.9
1865	16.8	24.2	37.9	49.6	58.1	73.I	73.4	71.1	66.7	48.2	40.2	29.6	49.1
1866	22.4	27.9	32.8	47.8	53.4	66.1	74.4	65.5	62.0	49.6	41.6	27.2	47.6
1867	18.6	32.2	30.8	44.7	53. I	66.9	69.2	70.4	60.0	50.9	38.7	23.1	46.6
1868	22.0	20. I	32.3	42.I	50.8	64.2	73.6	69.7	59.9	46.4	36.5	25.6	45-3
1869	27.9	28.9	26.6	43.6	54.0	64.2	70.8	67.6	62.3	48.7	36.4	28.4	46.6
1870	32.7	24.5	30.0	46.6	57.6	68.5	72.9	71.8	62.7	53.3	41.1	32.6	49.5
M'ns	24.5	25.8	33.2	44.5	55.2	1.66	71.5	68.9	61.3	49-9	39-3	27.7	47.3

These temperature records were made at the Astronomical Observatory of Harvard College, which is located on Concord Avenue and Bond Street, Cambridge, Mass., about three miles from the Weather Bureau station in Boston, Mass.

### MISCELLANEOUS DATA FOR 1947.

Barometric Pressure (reduced to sea level).—Mean, 29.98 inches, 1015.4 millibars; highest, 30.97 inches, 1048.8 millibars; Jan. 1; lowest, 28.72 inches, 972.6 millibars, March 3.

Temperature.—Greatest monthly range, 53°, January; least monthly range, 34°, Nov. Highest mean temperature of three consecutive days, 85°, Aug. 13-15; lowest mean temperature of three consecutive days, 13°, Jan. 9-11.

Precipitation.—Longest period without precipitation, 28 days, Oct. 1-28; longest period with precipitation, 8 days, Apr. 30-May 7. Greatest amount in 24 consecutive hours, 3.32 inches, Nov. 11-12. Maximum amount in 5 minutes, 0.33 inch, July 28; 10 minutes, 0.52 inch, July 28; 15 minutes, 0.69 inch. July 28; 30 minutes, 0.88 inch, July 28; 1 hour, 1.36 inches, Sept. 2.

Frost.—Last killing frost in spring, Apr. 28. First killing frost in autumn, Nov. 11.

Snow.—Greatest snowfall in 24 hours. 10.0 inches, Dec. 23-24. Greatest depth of snow on ground, 9.5 inches. Dec. 27. Last snow in spring occurred on Apr. 28; first in autumn occurred on November 12.

Thunderstorms.— First thunderstorm occurred on May 18; last thunderstorm occurred on December 27.

## Monthly and Annual Mean Temperatures

			Mon	tniy	ina A	nnual			perat	ures			
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An'l
1871 1872	26.0 27.4	28.6	41.5 26.0	47.0 46.6	57.9	65.9 68.9	70.8 75.6	71.7	<b>59.3</b> 64.5	54.0	36.6	27.9	48.9
1873	25.1	26.3	33.9	45.0	56.8	67.3	72.9	69.8	62.8	53.5	33.4	32.0	48.2
1874	30·5 20·1	27.0	34.4	38.8	55·4 57·9	66.0 66.7 68.8	72.6 72.1	68.0	60.6	53.2	35.0	31.3	48.6
1876 1877	30.7	27.4 34.2	33.4	43.9	54.6	68.8	74.0 71.1	70.2	59.9	48.2	4I.4 44.2	22.2 36.4	47.9
1878	28.0	30.6	39.6	48.2	56.5	64.6	73-7	69.7	64.2	56.1	40.8	30.3	50.2
1879 1880	24.2 34.6	24.6 31.8	33.6	42.4 46.4	63.7	64.8	70.8	69.3	62.0	57.6	38.8	32·3 26.7	48.4
1881		27.9	37.2 36.0	43.6	56.6 50.6	61.7 66.8	70.2 73.2	71.4	67.6	54·4 55·4	43.6	39.0	49.6
1883	24.4	28.8	30.8	45.2	56.5	70.I	71.7	63.2	59.8	47.7	42.8	29.1	47.9
1884	24 · I 27 · 4	31.2	34.2	43.8	54.8	67.2 66.8	71.8	69.7 67.8	66.9	52.6	4I 4 44.0	33.8 32 7	49.0
т886.	25.8	26.6	33·3 31.5	48.6	56.8	63.2 65.2	71.2	68.2	59.8	52.0	43.2	28.4 32.4	47.6 48.4 48.5
1887 1888	20.1	28.3	32.2	42.6	53.0	66.8	74.6 68.8	70.2	59.8	51.5	43.8	34.6	47.3
1889	35.8	26.0 33.2	38.2	47.8	60.3	69.2	69.4	67.4	62.8	48.5	41.6	38.0	50.7
1891	31.1	32.0	33.6	48.0	55.8 55.9	65.0	69.0	70.0	66.7	51.6 52.7	41.4	40.4	50.4 49.4
1893	20.7	26.8	32.8	44.4	56.3	64.8	71.4	69.6	60.0	54.8	42.2	30.4	47.9
1894	30. I 28.8	26.6	42.5 34.6	47.0 46.0	57.6	66.8	73·7 69·3	68.0	64.8	54.0 49.6	38.2 45.4	32.2 35.6	50.3
1896	24.9 28.4	28.7 30.9	32.0 36.9	47.2 49.0	60.3 57.6	66.1	71.8	70.7 69.6	62.2 63.1	50.2	46.5	3º. 4 34·0	49.2
1898	28.7	32.8	42.8	43.8	55.8	65.8	71.8	73.1	66.2	54.2	42.0	32.0 36.2	50.8
1899	29.0 30.0	26.8	34.0	48.1 48.6	57.8 55.2	70.0 68.6	72.6 73.8	68.8	62.0	54.5	42.I 44.6	30.2	50.2
1901	27.6 26.6	24.2	36.2 43.4	43.5 48.4	54·3 57·6	68.2	73·4 67·8	70.7 67.6	65.4	54.4	37·2 46.2	32·4 28.5	49.0
1903	26.8	31.4	44.4	47.8	58.5	59.8	71.4	<b>65.0</b> 68.7	64.4	53.9	40.0	29.0	49.4
1904	25. 1	22.6	34.6	44.6 46.8	60.8 57.6	64.0	71.4 73.2	68.6	62.5	50.6 53.6	38. <sub>2</sub> 41.6	25.8 35.1	47.I 49.I
1906	35·7 27.0	29.7	32·4 37·9	47.2	58.0	66. <sub>4</sub>	70.1	72.0 69.6	65.0 64.4	52.5 49.8	41.7	29 · I 37 · 2	50.0
1908	31.0	26.8 32.6	38.6 36.8	46.8	59.0	69.8	74·I 71·5	69.4	65.8 62.6	55·4 52.8	43.6	33.3	51.2
1910	32.0	29.5	42.0	51.6	55.8	65.2	74.9	68.8	62.8	56.0	41.2	27.5	50.5
1911	31.8	27.0 27.7	35·4 36.0	46. I 47.4	62.4 58.6	65.6 68.0	77.1 73.2	69.0	62.6 63.7	52.6 57.4	41.8	39·4 38·5	50.9
1913	39.2 28.7	27.7	42.4 36.7	48.0 45.3	55.2 60.4	67.5	73.8 68.6	70.8	62.0 64.6	56.4 57.0	46.5 42.7	37.8 30.4	52·3 49·7
1915	33.0	33.2	35.8 30.6	50.8 45.6	56.6 58.6	63.9	70. I 72.6	69.1	66.8	55 - 7	45·4 42.6	34·2 32·6	51.2
1917	30.2	25.5 25.8	37.2	44.0	50.7	65.8	73.3	72.8	60.2	55.5	39.4	23.7	49.7
1918		26.9 32.6	36.7 40.8	47.8	63.3 59.1	63.9	71.0	70.4 68.8	61.2 63.9	56·2 55·1	45.0 42.8	34 7 28.7	49.8
1920	2I.0 32.1	27.6	39.2 46.2	45.0 51.8	54·6 58.0	65.8	72·4 73·2	72.0 69.8	65.2 68.5	59.8 55.2	41.7 41.6	35.6 31.4	50.0 52.4
1922	27.2 27.0	32.0	39.8	48.7 48.2	61.4	68.6	72.0	70.4 69.4	65.2	55 • 1	43.8	30.9 40.4	51.3
1923	31.9	<sup>23</sup> ·4 <sup>26</sup> 6	33·9 37·4	47.2	57.6 56.2	66.6	73.8	71.8	62.2	55·5 54.6	44.6 44.6	31.1	50.3
1925	27.2 31.0	38.0 27.8	43.0	49.8	57·4 56.0	70.9 64.3	72.4 70.5	71.2 70.4	64.0	49·3 53·4	43.6	33.6	51.7 49.0
1927	30.6	32.6 29.6	41.6 37.0	48.3	55.2	65.0 65.0	72.2 73.2	67.4 73.6	65.0	57·9 56·6	<b>49.6</b> 44.8	36.0 38.5	51.8
1929	29.0	31.7	41.4	47.1	55·4 61.0	68.4	72.6	69.3	65.2	53.2	44.7	32.6	51.4
1930	31.8	34.1	38.3	47.6 50.2	59·4 60·3	72.4 67.2	72.6	70.5 72.2	<b>69.4</b> 66.9	53.0 58.5	45.0	33.2	52·3 53·0
1932	38.8 37.8	30.6	35.6 35.7	47.4	60.2 61.6	66.4	72.8 70.8	74.0 71.8	65.2	57·I 52·7	42.8 38.3	38.1	52.4 50.9
1934	29.6	33.7 17.5	35·1 38·4	48.0	60.6	66.9	73.2	67.3	64.6	49.6	45 6	28.4	48.9
1935	23.2 28.2	27.8	41.8	45.2 45.2	55·5 60.6	65.5	72.6 71.1	70.7 69.7	61.4	53.8	45·4 39·5	27.1 35.0	48.9 49.7
1937	37·4 28.0	33.2	34. I 39. I	45.2	59.1 55.8	66.4	73.2	74.6 73.6	63.0	52.6	44.0	31.2 34.0	51.2 51.1
1939	27.8	32.2	33.2	43.6	56.4	65.6	72.3	73.8 68.4	61.5	54.2	40.8	33.4	49.8
1941	23.0	29.6 29.4	33. I 33.4	43.6	56.2	65.1	71.6	70.6	63.3	50.6	42.9	34 · 3 35 · 2	48.5
1942	28.6 25.5	27.0 30.6	40.8 36.0	49·7 43·4	60.8 57.6	67. 4 71. 2	71.1	70.7 70. I	64.6	55.8	43.5	28.6	50.7 49.8
1944	31.0	29.6 30.5	34.I 46.3	44 6 <b>52.5</b>	63 2	67.0 66.6	73.8	<b>74.7</b> 70.8	65. o 67. I	53.8	43.2	30, 8	50.9
1946	28.4	27.6	47.2	46.2	55.2	67.5	71.9	67.8	65.8	53. I 58. 4	45. 5 47. 8	34.8	51.0
1947	32, 6	29, 6	37 · 7	47. 2	56.9	65. 4	74.4	73.2	64.8	61.6	41, 2	30. 4	51.2
M'ns	28.5	28.6	36.6	46.5	57.6	66.6	72. I	70.3	63.8	53.8	42.7	32.1	49.9
Norm	-Bol	d-face	figur	as ind	icate	nichae	tand	lowes	mont	hl= m	anne	-	

Note.-Bold-face figures indicate highest and lowest monthly means.

## Maximum Amounts of Precipitation

Month	5 m	in's	10 min's		15 min's		30 min's		1 hour		2 hours		24 hours	
	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.	Am't	Yr.
Jan	.20	1942	.25	1936	. 29	1936	. 40	1936	. 57	1919	.81	1919	3, 25	1881
Febr.	.11	1944	. 18	1944	. 21	1944	. 33	1920	. 49	1920		1920		1886
Mar	. 15	1913		1913		1913	.39	1913		*1932		1932		1877
April.	. 13	1936	. 19	1921	. 24	1920		1920	.50	1943		*1931	3 19	1921
May	.55	1932	.62	1932	. 63	1932	. 65	1932	.69	1926	.94	1926	3.31	1920
June.	. 43	1946	.72	1905		1905	. 97	1941	1.21	1942	1.80	1942	5.35	1875
July	. 50	1927	.67	1916		1916	1.33	1916	1.62	1921		1915		1923
Aug	. 55	1908	. 91	1908	1. 12	1908	1. 45	1908	1.80	1901		1917		1879
Sept	. 27	1941	. 43	1927	. 62	1927	1.01	1911		1904	1.74	1904		1933
Oct	.34	1928	. 54	1928	. 67	1928	.86	1906	1.58	1906		1906		1898
Nov.	.21	1925	. 34	1947	. 46	1947	.78	1947	1.18	1947		1947		1876
Dec	. 15	1937	21	1937	.26	1937	. 45	1937	.81	1937	1.47	1937	3.36	1937
High-														
est	. 55	*1932	.91	1908	1.12	1908	1 45	1908	1.80	1901	2.45	1915	6.04	192

## MONTHLY AND ANNUAL PRECIPITATION.

ear.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov	Dec	An'l.
						(		-		-		1	1
318	2.64	3.49	4.05	6.15	5.96	3.47	4.08	0.46	7.81	2.11	1.91	0.86	42.9
319	0.70	2.27	6.21	3.74	3.06	3.56	2.02	4.38	5.29	1.40	1,22	1.63	35.4
320	3.12	4.25	4.90	0.45	5.08	3.42	4.19	5.15	2.43	5.39	3.00	2,80	44.1
22	1.41	4.42	2.53	4.90 2.99	4.84	2.79	2.35	1.58	4.73	2.29	3.12	1.46	36.8
323	3.00	2.34 4.57	7.72	2.99	6.40	3.54	5.74	1.98	1.95	3.95	1.92	6.93	47.3
524	3.95	5.99	1.81	4.72	1.43	1.60	0.88	3.68	6.43	1.01	1.72	2.50	36.0
325	2.79	3.43	4.70	0.37	1.36	4.77	1.24	5.62	2.66	3.21	0.81	4.38	35-3
26	2.55	1.48	3.81	1.50	0.25	3.85	2.90	12.10	3.03	3.80	2.31	3.56	41.
327	3.92	2.97	2.51	4.75	5.34	2.56	2.59	4.88	4.81	5.28	5.71	3.59	48.9
28	2, 15	2.79	1.84	2,00	4.67	1.59	4.58	0.37	3.82	2.79	5.55	0.26	32.
329	4.93	5.62	4.30	3.45	2.71	1.64	6.98	4.95	2,62	1.65	5.74	2.26	46.
30	2.36	1.63	3.51	1.21	3.43	3.46	4.90	2.64	5.65	2.38	5.32	5.96	42.
31	4.44	3.68	3.07	6.97	3.65	4.32	5.53	5.57	3.83	4.42	3.20	2.93	51.0
32	4.47	3.74	2.65	5.56	7 - 27	0.50	3.41	6.14	2.07	2.46	3.57	4.85	46.
33	2.96	2.53	2.71	2.30	1.03	3.23	2.01	0.82	2.88	6.00	5.53	5.86	37 -
34	1.39	1.13	0.96	2.93	6.33	3.09	7.71	2.47	3.71	1.87	2.90	2,36	39.
35··· 36···	3·25 8·84	3.57	4.27	4.54 1.58	1.85	4.33	2.12	1.53	0.54	4.04	5.43	4.13	40.
37	4.10	4.14	3.02	3.07	5.79	2.98	1.80	1.67	0.56	1.58	2.35	2.46	33.
38	3.07	2.77	3.09	2,62	3.32	2.55	I, 20	4, 26	9.87	5.02	3.95	0.80	42.
39	0.98	3.11	1,18	7.73	4.27	2.25	3.32	5.70	2,00	2,50	1.71	6.35	41.
39	3.12	2.57	4.55	4.60	2.23	2.78	2.93	4.00	2.12	4.48	11.63	4.15	49.
341	6.00	1.60	3.50	8.82	1.90	1.95	2.10	4.20	2.86	3.80	4.55	5.77	47.
42	0.80	3.20	3.35	3.50	2,90	5.30	1.82	4.44	3.25	0.80	4.45	5.30	39.
343	2.20	6.08	6.17	3.88	1.60	4 61	2.15	6.88	0.98	4.82	3.40	3.92	46.0
344	3.68	2.42	6.00	0.20	2.72	1.40	2.17	2,62	3.53	5.80	3.15	3.85	37 . 5
345	4.58	4.25	3.83	1.23	2.82	2.05	3.28	1.82	2.23	4.00	10.25	5.98	46.
346	3.12	2.95	2.73	1.23	2.02	2.25	2.51	1.80	1.30	1.35	4.17	4.52	29.9
47	3.28	4.70	4.77	2.20	2.03	4.09	2.65	6.45	6.64	1.05	5.12	3.95	46.9
348	2.30 0.35	3.90	4.05	0.90	6.30	1.73	0.85	3. 10 6.25	3.55 1.25	5.10	2. 25	5.95 4.05	40.
50	4.59	2.52	7 · 35 5 · 32	4.82	6.63	2.77	2.70	5.30	7.15	2.10	5.50 3.32	6.76	53.9
51	1.30	4.20	3.88	9.37	3.31	1.80	3.09	1.27	3.50	4.43	5.51	2.65	44.
52	4.85	2.85	4.45	10.18	1.95	2.35	3.28	7.63	1.65	2, 19	3.47	3.09	47.9
53	2.44	5.30	2 27	3.78	5.63	0.30	3.64	9 40	3.80	3.92	4.43	3.95	48.8
54	2.91	5.30	2.84	6.63	4.33	2.47	3.70	0.58	3.86	2.08	6.80	4.64	45.7
355	7.22	4.67	1.18	4.28	1.20	3.09	4.15	1.46	1.13	4.61	5.27	5.93	44.
356	5.32	0.80	1.33	4 · 37 10 · 83	7.10	2.90	4.02	11.11	4.90	2.70	3.33	4.28	52.
57	5.36	2.45	3.09	10.83	5.57	2.02	5.53	7.18	2. 56	4.50	2.52	5.26	56.8
358	3.28	2.30	2.18	5.18	3.89	8.09	4.56	7.03	5.02	3.03	3.38	4.73	52.0
359	5.93	4.05	7.64	3.36	3.63	7.89	1.58	4.72	4.40	3.28	3.75	6.47	56.
360	1.89	3.85	2.19	1.73	2.35	3.64	5.90	6.04	7.35	2.66	5.37	5.86	50.0
861	6.04 8.30	3.57	7.48	5·89 1·97	2.97	6.78		4.20	5.61	4.85	4.90 8.32	2.35 3.01	61.0
63	4.51	3.29	4.70 6.42	9.08	2.82	2.56	7·33 12:38	5.64	3.12	3.83	6.48	6.34	67.
864	3.87		11.75	4.72		1.47	1.90	4.17	2.60	4.80	4.00	5.28	49.
365	4.47	1.43 5.08	4.83	2.57	3·31 6·90	2.83	4.26	1.42	0.62	6,21	4.46	4.18	47.8
366		5.28	4.70	2.03	5.04	3.41	5.42	3.87	5.90	2.72	3.74	4.86	50.
867	3.73 6.06	6.55	6.12	2.52	4.11	2.74	4.76	10.78	0.44	6.76	2.32	2.48	55.0
868	6.09	1.88	5.04	6.94	10.38	3.79	1.10	7.53	11.95	1.78	5.31	2.32	64.
369	4.03	9.98	8.74	2.05	6.88	4.44	3.30	2.19	5.18	6.71	3.74	9.04	66.3
370	8.16	7.03	4.88	8.42	2.58	7.59	4.01	1.57	0.67	6.80	4.40	3.62	59.7
371	0.92	2.63	4.55	3.79	4.34	5.55	3.22	3.08	1.30	5.88	6.42	3.38	45.9
372	2.11	2.31	4.05	1.31	3.29	4.84	4.00	10.68	6.04	4.85	3,66	3.00	50.3
373	5.76	3.21	3.76	3.83	5.16	0.54	3.84	6.21	2.91	5.33	8.34	5.61	54 - 5

### MONTHLY AND ANNUAL PRECIPITATION-Continued.

1875   1.87	Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	An'l.
1876   1.87		4.32				3.71	3.94							43.52
1875. 7.06 4.40 5.97 4.19 3.36 3.24 2.27 4.49 0.00 8.88 0.02 1.32 51 1879. 7.06 4.40 5.91 0.14 1.03 2.28 4.38 7.00 3.49 3.79 4.35 3.99 6.55 0.97 6.24 3.09 6.75 0.06 8.00 2.27 4.23 3.99 6.55 0.97 6.24 3.09 6.27 1.84 0.00 2.29 3.00 3.42 3.00 3.42 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.0	1876	1.87		7.10	3.61	2.70		5.86			1.66			50.15
1879. 2.79 4.35 3.90 0.55 0.79 6.24 3.09 6.71 1.87 1.87 1.87 1.87 1.87 1.87 1.87 1		3.33	0.45		4.19			2.27	4.49		8.84	9.62	1.32	51.49
1881.								4.58	7.66				6.76	65.53
1881.								6.86						44.57
1882. 3.68 4.77 3.35 2.50 6.05 1.03 3.91 1.40 10.93 2.29 1.20 2.05 3.4 1.83 1.85 3.5 9 2.74 2.33 2.33 2.33 5.1 2.07 2.73 0.39 1.50 6.40 2.08 3.71 3.53 1884. 6.27 5.33 3.00 1.15 3.30 4.01 4.25 5.01 0.31 3.17 3.03 4.46 4.9 1885. 5.53 3.00 1.25 3.30 4.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1					1.66			2,96			2.84		3.80	37.30 52.63
1881		3.68		3.35	2.50	6.05					2.29		2.65	43.82
1886. 7.08 7.04 3.28 1.70 3.30 4.26 3.70 1.44 7.64 1.70 5.71 5.78 2.09 45 1886. 7.08 7.04 3.28 1.70 3.50 1.36 1.34 1.51 3.64 2.73 3.27 3.59 3.66 1.88 1.88 2.26 2.36 3.28 2.24 5.20 2.69 1.79 6.53 6.77 3.58 4.97 4.88 1.88 1.89 2.20 2.29 5.86 2.29 4.45 2.21 1.93 2.70 5.04 5.63 3.99 1.71 1.55 3.06 3.73 3.87 2.29 5.56 2.35 3.58 3.99 1.91 1.83 3.99 1.89 1.4 3.93 3.06 3.94 1.71 1.56 3.06 3.73 3.87 2.29 5.56 2.35 3.58 3.98 1.89 1.4 3.93 3.1 4.91 1.83 3.99 1.89 1.4 3.93 3.1 4.91 1.83 3.99 1.89 1.4 3.93 3.1 4.91 1.83 3.99 1.89 1.4 3.93 3.1 4.91 1.83 3.99 1.89 1.4 3.93 3.1 4.91 1.83 3.99 1.89 1.4 3.93 3.1 4.91 1.83 3.99 1.89 1.4 3.93 3.1 4.91 1.83 3.99 1.89 1.4 3.93 3.1 4.91 1.83 3.99 1.89 1.4 3.93 3.95 3.19 3.31 4.91 1.83 5.16 4.18 1.89 1.3 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10 1.28 3.10	1883	3.59		2.33			2.07		0.39					35.48
1880	1884	5.27	5.74	4.80		3.31			5.01	0.31	3.17			49.18
1885. 2.26 2.36 3.32 2.20 4.5.20 2.69 1.79 6.53 6.77 3.58 4.97 4.83 1889. 2.40 2.51 1.99 2.37 2.20 2.69 1.79 6.53 6.77 3.58 4.97 4.83 1890. 2.00 2.29 5.88 2.29 4.45 2.21 1.93 2.70 5.04 5.03 0.97 3.72 1.83 1890. 2.00 2.29 5.88 2.29 4.45 2.21 1.93 2.70 5.04 5.03 0.97 3.72 1.83 1890. 2.00 2.29 5.88 2.29 4.48 2.21 1.93 2.70 5.04 5.03 0.97 3.72 1.83 1891. 4.39 3.66 3.94 1.71 1.55 3.06 3.73 3.87 2.29 5.56 2.35 3.58 3.98 1892. 4.62 2.15 3.91 0.93 5.15 3.05 2.56 4.87 1.19 2.21 1.33 1.55 1.01 3.78 4.12 0.80 3.09 3.03 2.14 5.11 3.10 4.28 5.16 41 1.894. 3.01 3.15 1.01 3.78 4.12 0.80 3.09 3.09 3.02 2.14 5.11 3.10 4.28 5.16 1894. 3.01 3.15 1.01 3.78 4.12 0.80 3.09 3.09 3.02 1.14 5.11 3.10 4.28 5.16 1895. 3.79 1.11 2.72 3.65 2.71 1.73 2.98 3.14 1.55 1.61 8.07 2.45 1896. 2.25 3.94 5.41 1.55 1.68 2.71 2.00 2.15 6.40 3.15 3.70 1.70 1.91 1.91 1.91 1.91 1.91 1.91 1.91 1.9	1886	7.08	7.04			3.08		1.81						45.10
1889. 4.11 1.54 1.19 3.07 4.15 2.77 5.80 3.95 3.19 3.31 4.91 1.83 1980. 2.00 2.29 5.88 2.29 4.48 2.21 1.93 2.70 5.04 5.63 0.97 3.72 39 1892. 4.62 2.15 3.91 0.93 5.16 3.73 3.87 2.29 5.56 2.25 5.35 5.28 3.18 3.28 1.92 1.11 5.50 3.06 3.73 3.87 2.29 5.56 2.25 5.25 5.28 5.35 3.58 3.9 1892. 4.62 2.15 3.91 0.93 5.15 3.05 2.56 4.87 1.90 2.31 4.45 1.12 37 1893. 2.56 6.22 2.80 3.13 5.23 2.20 1.72 6.46 1.59 2.94 1.83 5.16 4.12 37 1893. 2.56 6.22 2.57 3.78 4.12 0.80 3.09 3.03 2.14 5.11 3.10 4.28 36 1895. 3.79 1.11 2.72 3.65 2.27 1.73 2.98 3.21 1.53 6.19 8.07 2.45 40 1896. 2.25 3.94 5.41 1.56 1.68 2.71 2.99 2.15 6.40 3.15 3.70 1.70 3.79 1895. 3.50 4.81 1.82 6.39 4.33 1.60 4.22 3.95 2.38 0.41 6.19 3.92 40 1895. 3.50 4.81 1.82 6.39 4.33 1.60 4.42 6.38 1.93 7.71 5.32 2.19 49 1990. 4.20 6.53 4.60 1.90 5.07 1.85 2.69 2.46 4.62 3.41 6.19 2.22 1.94 1990. 4.20 6.58 3.460 1.90 5.07 1.85 2.69 2.46 4.62 3.41 4.17 2.25 48 1992. 4.19 5.06 6.66 6.58 7.43 6.31 1.37 2.29 3.29 3.3 2.43 3.90 2.24 18 1.94 1.94 1.94 1.94 1.94 1.94 1.94 1.94		4.86		3.86	2.62		1.98		3.05	0.97				33.75
1890.   2.00   2.29   5.88   2.29   4.48   2.21   1.93   2.70   5.04   5.63   0.97   3.72   3.98   1.992.   4.62   2.15   3.94   1.71   1.55   3.06   3.73   3.87   2.29   5.55   2.35   2.35   5.88   3.98   3.66   3.73   3.87   2.29   5.55   2.35   2.35   5.88   3.98   3.66   3.73   3.87   2.29   5.56   2.35   2.35   5.88   3.98   3.66   3.73   3.87   2.29   5.56   2.35   2.35   5.88   3.98   3.66   3.79   3.78   3.87   3.78   4.12   3.79   3.71   3.78   4.12   3.79   3.79   3.71   3.78   4.12   3.79   3.79   3.71   3.78   4.12   3.79   3.79   3.71   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79   3.79				3.32				1.79	6.53	6.77	3.58		4.38	45.89
1891. 4.39 3.666 3.94 1.71 1.56 3.06 3.73 3.87 2.29 5.56 2.35 3.58 3.9 3.91 0.93 5.15 3.05 2.56 4.87 1.90 2.31 4.45 1.12 37 1893. 2.56 6.22 2.80 3.13 5.15 3.05 2.56 4.87 1.90 2.31 4.45 1.12 37 1893. 2.56 1.31 1.56 1.13 1.10 4.28 3.6 1894. 3.01 3.15 1.10 1.378 4.12 0.80 3.09 3.09 3.02 2.14 5.11 3.10 4.28 3.6 1895. 3.75 3.79 1.11 2.72 3.65 2.71 1.73 2.98 3.24 1.53 6.49 8.07 2.45 2.10 1.90 1.90 1.90 1.90 1.90 1.90 1.90 1				1.19				5.80			3.31			39.82
1892.   4.62   2.15   3.91   0.93   5.15   3.05   2.56   4.87   1.90   2.37   4.15   5.16   41     1894.   3.01   3.15   1.01   3.78   4.12   0.80   3.09   3.03   2.14   5.11   3.10   4.28   3.10     1895.   3.79   1.11   2.72   3.65   2.71   1.73   2.98   3.24   1.53   6.10   8.07   2.45   4.50     1896.   2.25   3.94   5.14   1.56   1.66   2.71   2.90   2.15   6.40   3.15   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   1.70   3.70   3.70   1.70   3.70   1.70   3.70   3.70   3.70   3.70   1.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70   3.70														39.14
1894   3.01   3.15   1.01   3.78   4.12   0.80   3.09   3.03   2.14   1.53   6.19   1.70   3.15   3.70   1.11   2.72   3.65   2.71   1.73   2.98   3.24   1.53   6.19   8.07   2.45   4.86   1.75   3.15   3.70   1.17   2.72   3.65   2.71   1.73   2.98   3.24   1.53   6.19   8.07   2.45   4.81   1.75   3.18   3.15   3.70   2.15   3.94   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.70   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15   3.15							3.05	2.56			2.31		1.12	37.02
1896   3.79	1893		6.22	2.80	3.13	5.23	2.20	1.72	6.46	1.59	2.94	1.83	5.16	41.84
1896 2.25 3.94 5.41 1.56 1.68 2.71 2.90 2.15 6.40 3.15 3.70 1.70 3.71 1.97 1.97 1.97 1.97 1.97 1.97 1.97 1	1894				3.78		0.80				5.11	3.10		36.62
1896 3.50						1 68	2.71							40.17 37.55
1899. 4-19 3.03 5.95 1.85 1.82 6.39 4.33 1.60 4.42 6.38 1.93 7.17 5.32 2.19 4.9 1890. 4-19 3.03 5.95 1.20 0.81 2.86 2.52 5.25 5.09 2.40 2.51 1.52 34 1.900. 4-20 6.83 4.60 1.90 5.07 1.85 2.60 2.46 4.62 3.44 4.17 2.25 44 1.90 1.50 4.66 6.58 7.43 6.31 1.31 5.20 2.60 2.46 4.62 3.44 4.17 2.25 44 1.90 1.50 4.66 6.58 7.43 6.31 1.31 5.20 2.00 2.08 4.36 1.09 4.48 3.1933. 3.43 3.90 5.95 4.33 0.32 7.19 2.99 3.33 2.43 3.95 1.48 2.70 4.83 1.904. 4.80 2.49 2.43 9.14 3.38 2.06 1.23 2.19 5.57 2.13 1.70 2.52 39 1.905. 4.09 1.59 2.25 2.14 1.47 5.23 1.00 3.39 5.10 0.82 1.77 3.23 3.2 1.905. 4.09 1.59 2.25 2.14 1.47 5.23 1.00 3.39 5.10 0.82 1.77 3.23 3.2 1.905. 2.90 2.66 5.45 2.15 4.91 2.57 5.38 1.58 2.61 3.88 2.50 6.20 4.31 37 1.908. 2.47 2.96 2.97 1.70 3.78 1.08 3.17 4.35 0.68 3.70 0.42 4.47 1.32 8.39 3.92 2.33 4.45 0.97 3.55 5.15 1.07 4.11 3.19 4.01 1.91 1.22 8.28 2.85 2.95 2.28 0.35 0.40 1.27 1.00 1.10 7.43 2.51 6.02 4.31 37 1.91 1.22 2.87 2.38 4.18 3.07 4.04 0.27 5.08 2.14 1.14 3.25 2.22 1.02 4.89 1.15 0.98 2.14 1.14 3.25 2.25 1.02 1.02 1.02 1.01 1.01 1.01 1.01 1.01							4.46					6.19	3.92	40.77
1899   4-19   3.03   5-95   1.29   0.81   2.86   2.52   2.52   5.09   2.40   2.51   1.52   34     1900   4-20   6.83   4-60   1.99   5.07   1.85   2.69   2.46   4.62   3.41   4.17   2.25   44     1901   1.56   0.66   6.58   7.43   6.31   1.31   5.20   3.25   2.50   3.02   2.41   8.49   48     1902   1.65   4.19   5.29   2.87   1.07   1.77   2.88   2.20   2.08   4.36   1.09   4.48   3.19     1903   3-43   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   41     1904   4.80   2.49   2.43   9.14   3.38   2.06   1.23   2.19   5.57   2.13   1.70   2.52   39     1905   2.96   2.66   5.45   2.15   4.91   2.57   5.38   1.58   2.64   3.88   2.55   3.06   4.07     1907   2.54   1.88   1.66   3.31   3.12   2.55   1.09   1.10   7.43   2.54   6.23   4.31   37     1908   2.47   2.96   2.97   1.70   3.78   1.08   3.17   4.35   0.68   3.70   0.74   2.47   3.09     1910   4.25   3.44   1.25   2.22   1.02   4.89   1.15   0.98   2.14   1.14   3.75   2.10   2.85     1911   2.28   2.95   2.38   0.35   3.67   4.65   4.17   2.95   2.27   2.29   3.07   3.55     1912   2.87   2.38   4.18   3.07   4.04   0.27   5.16   1.94   1.67   1.00   2.61   5.36   3.49     1913   2.38   3.29   4.81   4.77   3.22   0.64   2.69   3.60   0.21   1.54   2.75   3.05   3.19     1914   3.26   3.07   4.16   5.87   2.78   4.45   4.05   7.10   1.94   1.67   1.00   2.61   5.36   3.49   1.91   1.25   3.40   3.14   3.45   3.00   3.37   3.73   3.73   3.73   3.73   3.73   3.73   3.73   3.73   3.73   3.73   3.73   3.73   3.73   3.73   3.73   3.73   3.73   3.74   3.73   3.73   3.73   3.73   3.74   3.73   3.73   3.73   3.74   3.73   3.73   3.73   3.73   3.74   3.73   3.73   3.73   3.74   3.73   3.73   3.73   3.74   3.73   3.73   3.74   3.73   3.73   3.74   3.73   3.73   3.74   3.73   3.73   3.74   3.73   3.74   3.75   3.73   3.73   3.74   3.75   3.73   3.73   3.74   3.75   3.73   3.73   3.74   3.75   3.73   3.73   3.74   3.75   3.73   3.73   3.74   3.75   3.73   3.73   3.74   3.75   3.73   3.75	1898		4.81	1.82			1.60		6.38	1.93			2.19	49.86
1901.   1.56   0.66   6.58   7.43   6.31   1.31   5.20   3.25   2.50   3.02   2.41   8.49   48   1902.   1.65   4.19   5.29   2.87   1.07   1.77   2.88   2.20   2.08   4.36   1.09   4.48   3.3   1903.   3.43   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   41   1904.   4.80   2.49   2.43   9.44   3.38   2.06   1.23   2.19   5.57   2.13   1.70   2.52   39   1905.   4.90   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   32   1905.   2.96   2.96   2.45   4.47   2.57   5.38   1.58   2.64   3.88   2.55   3.96   40   4.97   1.38   1.66   3.37   3.12   2.56   1.09   1.10   7.43   2.54   6.02   4.31   37   1908   2.47   2.96   2.97   1.70   3.78   1.08   3.17   4.35   0.68   3.70   0.74   2.47   3.01   3.19   4.71   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   4.01   3.19   3.01   3.19   3.08   3.99   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.19   3.08   3.99   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01   3.01			3.03	5.95						5.09				34.69
1902   1.65   4.19   5.29   2.87   1.07   1.77   2.88   2.20   2.68   4.36   1.09   4.48   1.90   1.90   1.90   3.43   3.99   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   3.19   1.90   1.90   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   2.52   39   1.905   1.90   2.25   5.45   2.15   4.91   2.57   5.38   1.58   2.64   3.88   2.55   3.96   4.96   1.90   1.90   2.25   3.34   1.58   2.57   3.18   1.90   2.25   3.39   5.10   0.82   1.77   3.23   3.24   3.25   1.90   3.39   5.10   0.82   1.77   3.23   3.24   3.25   1.90   3.99   5.10   0.82   1.77   3.23   3.24   3.25   1.90   1.90   1.10   7.43   2.54   6.02   4.31   3.75   1.90   1.90   1.10   7.43   2.54   6.02   4.31   3.75   1.90   1.90   1.10   7.43   2.54   6.02   4.31   3.19   4.00   1.90   1.90   1.90   1.90   1.90   1.10   7.43   2.54   6.02   4.31   3.19   4.00   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.90   1.			0.83											44.05
1903.   3.43   3.90   5.95   4.43   0.32   7.19   2.99   3.33   2.43   3.95   1.48   2.57   41   1904.   4.80   2.49   2.43   9.14   3.38   2.06   1.23   2.19   5.57   2.13   3.95   1.70   2.52   39   1905.   4.09   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   32   32   32   32   32   32					2.87			2.88		2.08				48.72 33.93
1905.   4.09   1.59   2.25   2.14   1.47   5.23   1.00   3.39   5.10   0.82   1.77   3.23   3.23   3.10   1.90   1.10   7.43   2.54   6.02   4.31   3.71   3.90   3.94   4.71   3.28   3.92   2.33   4.45   0.97   3.55   5.15   1.07   4.11   3.19   40.19   4.25   3.44   1.25   2.22   1.02   4.89   1.15   0.98   2.14   1.14   3.75   2.10   2.81   1.91   2.28   2.85   2.95   2.28   0.35   3.67   4.65   4.17   2.95   2.21   1.14   3.75   2.10   2.81   1.91   2.28   2.85   2.95   2.28   0.35   3.67   4.65   4.17   2.95   2.27   2.49   3.05   3.19   1.10   2.38   3.92   2.38   4.89   3.67   4.65   4.17   2.95   2.27   4.29   3.07   3.55   1.91   2.28   2.87   2.38   4.18   3.07   4.04   0.27   5.16   1.04   1.67   1.00   2.61   5.36   34   1.91   2.28   2.87   2.38   4.18   3.07   4.04   0.27   5.16   1.04   1.67   1.00   2.61   5.36   34   1.91   3.26   3.04   3.27   3.25   3.25   3.55   3.84   1.91   3.25   3.29   4.15   2.83   5.04   5.67   2.19   1.90   0.94   2.15   3.05   38   1.91   3.3   3.12   2.35   3.04   3.20   4.15   2.83   5.04   5.67   2.19   1.90   0.94   2.16   3.94   38   3.11   2.30   3.09   3.08   1.99   1.94   2.64   1.56   9.19   0.99   1.00   3.62   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   1.63   42   1.92   2.24   2.64   4.55   2.48   3.54   3.58   1.69   3.20   4.15   3.94   3.19   3.35   3.54   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   4.15   3.34   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.20   3.35   3.35   3.35   3.35   3.35   3.35   3.						0.32								41.97
1906.   2.96   2.66   5.45   2.15   4.91   2.57   5.38   1.58   2.64   3.88   2.55   3.96   40     1907.   2.54   1.88   1.66   3.31   3.12   2.56   1.09   1.10   7.43   2.54   6.02   4.31   37     1908.   2.47   2.96   2.97   1.70   3.78   1.08   3.17   4.35   0.68   3.70   0.74   2.47   30     1909.   3.94   4.71   3.28   3.92   2.33   4.45   0.97   3.55   5.15   1.07   4.11   3.19   40     1910.   4.25   3.44   1.25   2.22   1.02   4.89   1.15   0.98   2.14   1.13   3.75   2.10   28     1911.   2.28   2.85   2.95   2.28   0.35   3.67   4.65   4.17   2.95   2.27   4.29   3.07   3.5     1912.   2.87   2.38   4.18   3.07   4.04   0.27   5.16   1.94   1.67   1.00   2.61   5.36   34     1913.   2.38   2.99   4.81   4.77   3.22   0.64   2.69   2.86   2.51   6.04   2.15   3.05   38     1914.   3.26   3.07   4.16   5.87   2.78   1.40   2.64   3.20   0.21   1.54   2.72   3.46   34     1915.   6.33   3.47   T.   1.86   1.64   1.39   8.85   5.63   0.69   2.82   2.14   3.94   38     1916.   1.23   5.18   3.20   4.51   2.83   5.04   5.67   2.19   1.90   0.94   1.67   3.00   3.05     1918.   3.11   2.30   3.19   3.08   1.99   1.94   2.64   1.56   9.19   0.99   1.20   3.21   34     1920.   2.72   5.88   3.72   5.68   5.26   5.78   1.56   2.32   1.90   1.04   5.30   0.59   2.56   38     1921.   2.24   2.64   1.92   4.62   3.64   3.58   1.69   1.63   1.22   1.24   6.19   2.35   4.19     1922.   1.41   2.64   4.35   2.48   5.04   3.55   1.69   1.63   1.22   1.24   6.19   2.35   4.19     1923.   6.07   1.48   2.49   5.26   0.83   2.03   3.36   1.86   0.38   3.37   2.78   4.98   4.91     1924.   3.27   2.61   2.04   3.79   2.81   1.07   2.04   6.86   6.96   0.06   0.06   0.06   3.89   4.99   0.22   3.24   3.30   0.24   3.79   0.84   3.01   4.19   0.24   3.77   3.31   1.33   6.06   3.91   1.08   3.55   4.07   3.94   4.89   0.24   0.24   4.55   2.48   3.04   4.55   2.48   3.04   4.55   2.48   3.04   4.55   2.48   3.04   4.55   2.48   3.04   4.55   2.48   3.04   4.85   2.48   3.04   4.18   3.00   1.98   3.38   4.25   3.41   3.94	1904		2.49	2.43	9.14	3.38	2,06	1.23	2.19	5.57	2.13	1.70	2.52	39.64
1907.   2.54   1.88   1.66   3.31   3.12   2.56   1.09   1.10   7.43   2.54   6.02   4.31   37   1908.   2.47   2.96   2.97   1.70   3.78   1.08   3.17   4.35   0.68   3.70   0.74   2.47   30   3.94   4.71   3.28   3.92   2.33   4.45   0.97   3.55   5.15   1.07   4.11   3.75   2.10   28   2.85   2.95   2.28   0.35   3.67   4.65   4.17   2.95   2.74   4.29   7.30   7.35   1.91   2.28   2.85   2.95   2.28   0.35   3.67   4.65   4.17   2.95   2.74   4.29   7.30   7.35   1.91   2.28   2.85   2.95   2.28   0.35   3.67   4.65   4.17   2.95   2.74   4.29   3.07   3.55   1.91   3.26   3.07   4.16   5.87   2.78   1.40   2.64   3.20   0.21   1.54   2.72   3.46   3.41   3.19   3.62   3.34   T.   1.86   1.64   1.39   8.85   5.63   0.69   2.82   2.14   3.94   3.81   3.19   3.34   3.20   4.45   4.55   3.05   3.85   5.67   2.19   1.90   9.4   1.67   3.00   3.74   3.35   3.34   7.1   1.86   1.64   1.39   8.85   5.63   0.69   2.82   2.14   3.94   3.8   3.91   3.81   3.20   4.15   2.33   4.25   1.08   4.63   5.07   5.67   2.19   1.90   9.4   1.67   3.00   3.74   3.35   3.34   3.34   3.20   4.15   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   1.63   4.24   1.92   4.66   3.58   11.69   1.63   1.22   1.24   3.94   3.84   1.92   3.62   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   1.63   4.24   1.92   4.66   3.79   2.88   3.79   1.55   5.21   2.48   5.34   3.58   11.69   1.63   1.22   1.24   6.19   2.35   4.25   1.94   1.69   1.63   3.25   1.94   1.69   1.63   3.66   1.22   1.24   3.44   3.75   3.66   3.79   1.55   5.21   2.48   2.07   4.59   3.54   1.40   3.45   4.03   3.66   5.25   4.98   3.34   4.75   3.66   1.97   0.84   3.34   4.91   3.25   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3.35   3			1.59				5.23		3.39	5.10		1.77	3.23	32, 08
1908.   3-94   4-71   3-28   3-92   2-33   4-85   0-97   3-55   5-15   1-97   4-11   3-19   40			1.88	1.66		3.12	2.56	7.00	1.10			6.02		40.69 37.56
1909. 3.94 4.71 3.28 3.92 2.33 4.45 0.97 3.55 5.15 1.07 4.11 3.79 40.1910. 4.25 3.44 1.25 2.22 1.02 4.89 1.15 0.98 2.14 1.14 3.75 2.10 28 1911. 2.28 2.85 2.85 2.28 0.35 3.67 4.66 4.17 2.95 2.27 4.29 3.07 3.51 1912. 2.87 2.38 4.18 3.07 4.04 0.27 5.16 1.94 1.67 1.00 2.61 5.36 34 1913. 3.26 3.07 4.16 5.87 2.78 1.40 2.69 2.86 2.51 6.04 2.15 3.05 38 1914. 3.26 3.07 4.16 5.87 2.78 1.40 2.64 2.69 2.86 2.51 6.04 2.15 3.05 38 1914. 3.26 3.07 4.16 5.87 2.78 1.40 2.64 3.20 0.21 1.54 2.72 3.46 3.49 1915. 6.33 3.47 T. 1.86 1.64 1.39 8.85 5.63 0.69 2.82 2.14 3.94 38 1915. 6.33 3.47 3.3 2.72 4.45 4.05 1.10 7.06 1.91 5.33 0.59 2.56 38 1914. 3.11 2.30 3.19 3.08 1.99 1.94 2.64 1.56 9.19 0.99 1.20 3.21 34 1919. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42 1920. 2.72 5.88 3.72 5.68 5.26 5.78 1.56 2.32 1.90 1.64 5.46 3.89 45 1922. 2.24 2.64 1.92 4.62 3.64 3.58 11.69 1.63 1.22 1.24 6.19 2.35 42 1922. 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.36 1.90 0.84 3.01 41 1923. 6.07 1.48 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34 1924. 3.27 2.61 2.04 6.86 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.68 3.08 5.56 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4.09 2.99 3.5 4				2.97			80.1			0.68	3.70			30.07
1911. 2.28	1909	3.94		3.28	3.92	2.33	4.45	0.97	3.55		1.07	4.11	3.19	40.67
1912 2.87 2.38 2.99 4.81 3.07 4.04 0.27 5.16 1.94 1.67 1.00 2.61 5.36 34 1913 2.38 2.99 4.81 4.77 3.22 0.64 2.69 2.86 2.51 6.04 2.15 3.05 38 1914 3.26 3.07 4.16 5.87 2.78 1.40 2.64 3.20 0.21 1.54 2.72 3.46 34 1915 6.33 3.47 T. 1.86 1.64 1.39 8.85 5.63 0.69 2.82 2.14 3.94 38 1916 1.23 5.18 3.20 4.51 2.83 5.04 5.67 2.19 1.90 0.94 1.67 3.00 37 1917 2.82 2.67 3.73 2.72 4.45 4.05 1.10 7.06 1.191 5.33 0.59 2.56 38 1918 3.11 2.30 3.19 3.08 1.99 1.94 2.64 1.56 9.19 0.99 1.20 3.21 34 1919 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42 1920 2.72 5.88 3.72 5.68 5.26 5.78 1.56 2.32 1.90 1.64 5.46 3.89 45 1921 2.24 2.64 1.92 4.62 3.64 3.58 11.69 1.63 1.22 1.24 6.19 2.35 42 1922. 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41 1923 6.07 1.48 2.49 5.26 0.83 2.03 3.36 1.86 6.96 0.06 1.93 1.48 3.49 1924 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34 1925 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41 1923 6.05 2.33 3.31 1.33 6.06 3.91 1.08 3.84 4.77 3.96 40 1927 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41 1928 1.66 2.66 1.56 4.68 3.38 3.39 1.08 1.09 1.08 3.84 4.77 3.96 40 1927 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41 1928 1.66 2.66 1.56 4.68 3.38 3.39 1.08 3.39 1.08 3.81 1.09 2.27 2.23 3.02 2.08 3.39 3.22 2.82 2.30 1.35 2.22 0.76 2.38 3.01 4.43 37 1930 2.77 2.23 3.02 2.08 3.39 3.22 2.85 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 1.08 3.39 3.00 0.26 5.83 3.01 4.43 3.79 1.39 1.31 3.57 5.34 2.52 3.44 4.77 5.75 3.75 3.84 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.54 3.99 2.99 3.55 3.50 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.9		4.25	3.44				4.89	1.15		2.14				28.33
1914.   3.26   3.07   4.16   5.87   2.78   1.40   2.64   3.20   0.21   1.54   2.72   3.05   38.     1915.   6.33   3.47   T.   1.86   1.64   1.39   8.85   5.63   0.69   2.82   2.14   3.94   38.     1916.   1.23   5.18   3.20   4.51   2.83   5.04   5.67   2.19   1.90   0.94   1.67   3.00   37.     1917.   2.82   2.67   3.73   2.72   4.45   4.05   1.10   7.06   1.91   5.33   0.59   2.56   38.     1918.   3.11   2.30   3.19   3.08   1.99   1.94   2.64   1.56   9.19   0.99   1.20   3.21   34.     1919.   3.62   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   1.63   42.     1920.   2.72   5.88   3.72   5.68   5.26   5.78   1.56   2.32   1.90   1.64   5.46   3.89   42.     1921.   2.24   2.04   1.92   4.62   3.64   3.58   11.69   1.63   1.22   1.24   6.19   2.35   42.     1922.   1.41   2.64   4.35   2.48   5.34   8.05   2.63   4.75   3.66   1.97   0.84   3.01   41.     1923.   6.07   1.48   2.49   5.26   0.83   2.03   3.36   1.86   0.38   3.37   2.78   4.98   34.     1924.   3.27   2.61   2.04   3.79   2.81   1.07   2.04   6.86   6.96   0.60   0.60   1.93   1.48   34.     1925.   3.97   1.55   5.21   1.73   3.31   1.33   6.06   3.91   1.08   3.58   3.58   4.07   3.96   40.     1927.   2.07   3.28   1.19   1.36   2.50   2.43   4.47   6.73   2.43   3.77   4.71   5.23   41.     1928.   1.66   2.66   1.56   4.68   3.08   5.56   4.14   2.45   4.47   2.88   1.85   2.61   37.     1929.   3.23   3.26   2.98   3.39   2.24   3.36   3.37   2.78   4.91   3.94   3.11   0.65   2.93   4.93   4.93   3.94   4.43   3.77   4.71   5.23   41.     1933.   4.09   4.21   4.66   3.12   4.51   5.50   2.43   4.45   4.77   6.73   2.43   3.07   4.71   5.23   41.     1933.   4.24   1.74   5.28   1.67   1.63   2.05   2.10   4.24   4.50   0.47   2.88   3.01   4.43   37.     1933.   4.24   1.74   5.28   1.67   1.63   2.05   2.10   4.24   4.50   0.47   2.18   0.66   2.93   4.79   3.93   4.24   4.77   5.33   3.94   4.65   5.09   3.95   4.66   5.09   3.94   4.93   3.94   4.94   4.94   4.94   4.94   4.94   4.94   4.94   4.94   4		2.87					0.27			1.67				35·78 34·55
1915. 6.33 3.47 T. 1.86 1.64 1.39 8.85 5.63 0.69 2.82 2.14 3.94 38.  1917. 2.82 2.67 3.73 2.72 4.45 4.05 1.10 7.06 1.91 5.33 0.59 2.56 38.  1918. 3.11 2.30 3.19 3.08 1.99 1.94 2.64 1.56 9.19 0.99 1.20 3.21 34.  1919. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42.  1920. 2.72 5.88 3.72 5.68 5.26 5.78 1.56 2.32 1.90 1.64 5.46 3.89 45.  1921. 2.24 2.64 1.92 4.62 3.64 3.58 11.69 1.63 1.22 1.24 6.19 2.35 42.  1922. 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41.  1923. 6.07 1.48 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34.  1924. 3.72 5.10 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34.  1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41.  1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41.  1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41.  1928. 1.66 2.66 1.56 4.68 3.08 5.56 4.14 2.45 4.47 2.88 1.85 2.61 37.  1929. 3.82 3.88 2.80 7.52 2.82 2.30 1.35 2.22 0.76 2.38 3.07 4.73 1.52 3.41 1.92 2.20 0.76 2.38 3.07 4.73 1.52 3.41 1.92 2.42 4.61 9.94 2.45 4.45 4.47 2.88 1.85 2.61 37.  1933. 4.09 4.21 4.66 3.12 4.51 9.13 2.43 4.45 1.67 2.18 8.08 2.99 35.  1933. 2.04 3.77 5.80 7.37 2.74 4.51 9.13 2.43 4.45 1.67 2.18 5.24 1.78 41.  1933. 4.24 1.74 5.28 1.67 1.03 2.05 2.10 4.24 4.50 0.34 3.91 0.65 2.93 47.  1933. 4.24 1.74 5.28 1.67 1.03 2.05 2.10 4.24 4.50 0.39 3.95 1.65 2.90 44.  1933. 4.24 1.74 5.28 1.67 1.03 2.05 2.10 4.24 4.50 0.39 3.95 1.66 5.29 3.79 3.93 1.31 3.35 5.34 3.22 2.30 3.11 1.22 1.83 5.67 2.94 1.78 1.10 3.93 1.31 3.35 5.34 3.22 2.70 3.95 1.10 2.18 3.79 2.67 1.33 3.19 3.57 5.34 2.52 2.70 1.10 2.14 2.69 0.34 3.91 0.66 5.29 3.47 1.93 3.93 1.31 3.35 5.34 4.45 1.79 3.99 3.95 4.66 5.09 3.47 1.93 3.99 3.95 3.46 5.29 3.47 1.79 3.99 3.95 3.46 5.29 3.47 1.79 3.99 3.95 3.46 5.29 3.47 1.79 3.99 3.99 3.95 3.46 5.29 3.47 1.79 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3					4.77		0.64			2.51			3.05	38.11
1916. 1.23 5.18 3.20 4.51 2.83 5.04 5.67 2.19 1.90 0.94 1.67 3.00 37 1917. 2.82 2.67 3.73 2.72 4.45 4.05 1.10 7.06 1.91 5.33 0.59 2.56 38 1918. 3.11 2.30 3.93 3.08 1.99 1.94 2.64 1.56 9.19 0.99 1.20 3.21 34 1919. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42 1920. 2.72 5.88 3.72 5.68 5.26 5.78 1.56 2.22 1.90 1.64 5.46 3.89 45 1921. 2.24 2.64 1.92 4.62 3.64 3.58 11.69 1.63 1.22 1.24 6.19 2.35 42 1922. 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.38 3.37 2.78 4.98 34 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34 1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34 1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41 1926. 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40 1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41 1929. 3.82 3.78 2.80 7.52 2.82 2.80 4.44 1.4 2.4 4.4 50 7.18 5.24 1.74 5.88 1.85 2.61 3.7 1939. 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.26 5.83 4.09 2.99 35 1934. 4.09 4.21 4.66 3.12 4.51 1.56 3.11 1.25 1.83 5.67 2.94 1.78 1.93 4.93 4.99 4.21 4.66 3.12 4.51 1.56 3.11 1.25 1.83 5.67 2.94 1.78 1.93 4.93 4.99 4.21 4.66 3.12 4.51 1.56 3.11 1.25 1.83 5.67 2.94 1.78 1.64 3.4 1.93 4.91 0.65 5.09 4.1 1.93 3.2 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.99 4.17 1.93 3.21 1.56 3.11 1.25 1.83 5.67 2.94 1.78 1.64 3.4 1.93 3.93 1.31 3.57 5.34 2.52 3.44 2.20 3.44 1.04 4.47 1.14 4.82 2.90 4.47 1.23 4.49 2.88 1.85 2.29 0.44 4.77 1.35 5.07 1.10 2.14 2.69 0.34 3.91 0.66 5.09 4.1 1.93 3.2 1.3 3.26 1.52 4.77 1.35 5.07 1.10 2.14 2.69 0.34 3.91 0.65 5.09 4.1 1.93 4.1 1.04 4.77 1.14 2.91 3.2 1.93 4.1 1.28 4.91 2.38 3.19 4.0 1.28 4.49 1.48 2.29 2.90 4.47 1.22 2.63 3.41 1.94 4.47 1.14 4.82 2.16 0.99 3.19 3.1 3.3 5.7 5.34 2.52 3.44 4.20 3.94 4.20 3.94 4.21 4.21 1.79 3.40 1.70 2.44 4.24 4.44 4.20 9.1.96 2.78 4.66 5.09 4.3 1.99 3.2 1.99 3.2 1.8 3.79 5.23 4.54 1.29 2.90 1.55	1914	3.26		4.16	5.87	2.78		2.64		0.21	1.54	2.72	3.46	34.31
1917. 2.82 2.67 3.73 2.72 4.45 4.05 1.10 7.06 1.91 5.33 <b>0.59</b> 2.56 38.  1918. 3.11 2.30 3.19 3.08 1.99 1.94 2.64 1.56 9.19 0.99 1.20 3.21 34.  1919. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 4.29 2.27 5.88 3.72 5.68 5.26 5.78 1.56 2.32 1.90 1.64 5.46 3.89 45.  1921. 2.24 2.64 1.92 4.62 3.64 3.58 11.69 1.63 1.22 1.24 6.19 2.35 42.  1922. 1.41 2.64 4.35 2.48 5.34 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41.  1923. 6.07 1.48 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34.  1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.96 1.93 1.48 34.  1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.58 4.07 3.96 40.  1927. 2.57 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41.  1928. 1.66 2.66 1.56 4.68 3.08 5.56 4.14 2.45 4.47 2.88 1.85 2.61 37.  1930. 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.26 5.83 4.09 2.99 35.  1931. 4.09 4.21 4.66 3.12 4.51 9.13 1.22 2.63 3.41 1.09 4.31 0.65 2.93 47.  1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 3.11 0.94 3.11 0.65 2.93 47.  1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 3.59 1.08 3.19 1.08 3.19 0.66 32.  1938. 4.91 2.38 2.42 3.22 4.42 6.30 3.54 1.70 2.13 4.5 1.09 3.91 0.66 32.  1937. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 41.  1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 4.31 0.65 2.93 47.  1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 4.31 0.65 2.93 47.  1933. 2.04 3.77 6.80 7.52 2.84 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43.  1938. 4.91 2.38 2.42 3.22 4.42 6.30 9.46 3.31 1.09 4.31 0.65 2.93 47.  1933. 2.04 3.79 5.23 3.54 4.93 3.54 1.17 4.97 3.69 3.95 4.66 5.09 43.  1938. 4.91 2.38 2.44 3.52 4.42 3.22 4.42 4.50 0.09 3.95 4.66 5.09 43.  1938. 4.91 2.38 2.44 3.52 4.42 3.22 4.42 4.50 0.09 3.95 4.66 5.09 43.  1938. 4.91 2.38 2.44 3.52 4.42 3.22 4.42 4.44 4.44 2.09 1.96 2.43 4.99 2.89 2.80 50.  1938. 4.91 2.38 2.43 2.54 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 3.29 4.09 3.29 3.20 0.66 3.20 3.20 0.66 3.20 3.20 0.66 3.20 3.20 0.66 3.20 3.20 0.66 3.20 3.20 0.66 3.20 3.20 0.66 3.20 3.20 0.66 3.20 3.20 0.66 3.20		6.33	3.47	Т.									3.94	38.76
1918   3.11   2.30   3.10   3.08   1.99   1.94   2.64   1.56   9.19   0.99   1.20   3.21   34   1919   3.62   2.66   4.11   2.33   4.25   1.08   4.63   5.07   5.83   2.13   5.36   1.63   42   1920   2.72   5.88   3.72   5.68   5.26   5.78   1.56   2.32   1.90   1.64   5.46   5.46   3.89   45   1921   2.41   2.64   4.35   2.48   5.34   8.05   2.63   4.75   3.66   1.97   0.84   3.01   41   1923   6.07   1.48   2.49   5.26   0.83   2.03   3.36   1.86   0.38   3.37   2.78   4.98   3.41   1924   3.27   2.61   2.04   3.79   2.81   1.07   2.04   6.86   6.96   0.06   1.93   1.48   34   1924   3.27   2.61   2.48   2.74   4.59   3.54   1.40   3.45   4.03   3.66   5.20   41   1925   3.97   1.55   5.21   2.48   2.57   4.59   3.54   1.40   3.45   4.03   3.66   5.20   41   1925   3.97   1.55   5.21   2.48   2.57   4.59   3.54   1.40   3.45   4.03   3.66   5.20   41   1925   3.27   2.67   3.28   1.19   1.36   2.50   2.43   4.77   6.73   2.43   3.77   4.71   5.23   41   1926   2.53   3.82   3.78   2.82   2.82   2.30   1.35   2.22   0.76   2.38   3.01   4.43   37   1920   3.82   3.82   3.88   2.80   7.52   2.82   2.30   1.35   2.22   0.76   2.38   3.01   4.43   37   1930   2.77   2.23   3.02   2.08   3.39   2.24   3.36   3.03   0.26   5.83   4.09   2.99   35   1931   4.09   4.21   4.66   3.12   4.51   9.13   2.43   4.45   1.67   7.18   5.24   1.78   41   1933   2.04   3.77   6.80   7.37   7.47   1.22   2.63   3.41   10.94   3.11   0.65   2.93   47   1934   2.26   4.45   4.47   3.36   6.46   3.56   4.68   3.28   4.29   3.26   4.26   3.39   4.26   3.31   4.09   4.21   4.66   3.12   4.77   1.35   5.07   1.10   2.14   2.69   0.34   3.91   0.66   3.2   4.77   1.35   5.07   1.10   2.14   2.69   0.34   3.91   0.65   2.93   47   1.93   3.26   1.52   4.77   1.35   5.07   1.10   2.14   2.69   0.34   3.91   0.65   2.93   47   1.93   3.26   1.52   4.77   1.35   5.07   1.10   2.14   2.69   0.34   3.91   0.65   2.93   47   1.93   3.40   3.40   3.40   3.45   3.22   3.45   3.22   3.45   3.22   3.55   3.45   3.47   3.40   3.22   3.52   3.45					2 72								3.00	37.36
1910. 3.62 2.66 4.11 2.33 4.25 1.08 4.63 5.07 5.83 2.13 5.36 1.63 42.1920. 2.72 5.88 3.72 5.68 5.26 5.78 1.56 2.32 1.90 1.64 5.46 5.46 3.89 45.1922. 2.24 2.64 1.92 4.62 3.64 3.58 11.69 1.63 1.22 1.24 6.19 2.35 42.1922. 1.41 2.64 4.35 2.48 5.24 8.05 2.63 4.75 3.66 0.38 3.37 2.78 4.98 34.1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34.1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 0.06 1.93 1.48 34.1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41.1926. 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40.1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.57 4.71 5.23 41.1929. 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.76 2.38 3.01 4.43 3.79 3.02 2.08 3.39 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41.1929. 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.22 0.76 2.38 3.01 4.43 3.79 30.2 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.26 5.83 4.09 2.99 35.1931. 4.09 4.21 4.66 3.12 4.51 9.13 2.43 4.45 1.67 2.18 0.82 2.90 44.1932. 4.24 1.74 5.28 1.67 1.63 2.05 2.10 4.24 4.50 7.18 0.82 2.90 44.1932. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 47.1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 47.1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 47.1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 47.1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 47.1933. 2.04 3.77 5.34 4.94 2.25 3.47 1.10 4.51 5.379 2.94 1.78 1.64 34.1933. 2.04 3.79 5.34 4.58 4.79 1.35 5.07 1.10 2.14 2.69 0.34 3.91 0.66 32 1.93 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43.1933. 2.18 3.79 5.33 4.58 3.28 3.28 3.85 3.28 3.28 3.89 2.18 3.79 5.23 4.54 4.29 2.70 0.75 5.18 1.10 4.77 1.14 2.91 32.49 4.14 2.24 4.24 4.24 4.24 4.24 4.24 4.24					3.08									34.40
1922.   1.41   2.64   4.35   2.48   5.34   8.05   2.63   4.75   3.66   1.97   0.84   3.01   41   1923.   6.07   1.48   2.49   5.26   0.83   2.03   3.36   1.86   0.38   3.37   2.78   4.98   3.4   1924.   3.27   2.61   2.04   3.79   2.81   1.07   2.04   6.86   6.96   <b>0.06</b>   <b>0.06</b>   1.93   1.48   34   1924.   3.27   2.51   2.04   3.79   2.81   1.07   2.04   6.86   6.96   <b>0.06</b>   <b>0.06</b>   1.93   1.48   34   1926.   2.53   5.56   2.91   1.73   3.31   1.33   6.06   3.91   1.08   3.58   4.07   3.96   4.0   4.01   3.45   4.03   3.66   5.20   41   4.02   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.66   4.03   3.67   4.17   5.23   41   4.06   3.12   4.51   4.77   4.77   4.77   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78   4.78	1919	3.62	2.66	4.11	2.33	4.25	1.08	4.63	5.07	5.83	2.13	5.36	1.63	42.70
1922. 1.41 2.64 4.35 2.48 5.24 8.05 2.63 4.75 3.66 1.97 0.84 3.01 41.  1923. 6.07 1.48 2.49 5.26 0.83 2.03 3.36 1.86 0.38 3.37 2.78 4.98 34.  1924. 3.27 2.61 2.04 3.79 2.81 1.07 2.04 6.86 0.36 0.06 1.93 1.48 34.  1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.145 4.03 3.56 5.20 41.  1926. 2.53 5.56 2.91 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40.  1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41.  1928. 1.66 2.66 1.56 4.68 3.08 5.56 4.14 2.45 4.47 2.88 1.85 2.61 37.  1929. 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.2 0.76 2.38 3.01 4.43 37.  1930. 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.26 5.83 4.09 2.99 35.  1931. 4.99 4.21 4.66 3.12 4.51 9.13 2.43 4.45 1.67 2.18 0.82 2.90 44.  1932. 4.24 1.74 5.28 1.67 1.63 2.05 2.10 4.24 4.5 1.67 2.18 0.82 2.90 44.  1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 4.21 1.065 2.93 47.  1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 1.09 4.21 1.065 2.93 47.  1933. 2.04 3.77 6.60 6.40 3.21 1.55 3.11 1.25 1.83 5.67 2.94 1.78 1.64 34.  1935. 6.13 3.26 1.52 4.77 1.35 5.07 1.10 2.14 2.69 0.34 3.91 0.65 3.29 47.  1936. 6.6 3.66 6.40 3.54 1.70 2.37 1.04 5.15 3.79 2.67 1.33 8.19 46.  1937. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43.  1938. 4.91 2.38 2.42 3.22 4.42 6.30 9.46 3.31 6.00 2.43 3.91 0.66 5.09 43.  1939. 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.18 1.92 2.60 1.33 8.19 46.  1937. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43.  1944. 2.18 1.79 3.40 1.70 2.43 4.29 2.90 1.55 1.18 1.92 2.40 3.19 3.19 4.4 1.94 2.91 3.2 1.94 1.2 1.79 3.40 1.70 2.44 4.14 2.09 1.96 2.78 4.69 4.72 42.  1943. 3.74 1.23 4.02 2.64 4.75 5.55 3.79 2.07 1.73 5.5 3.90 3.77 1.85 5.88 5.88 3.98 2.19 3.95 1.13 5.13 3.95 37.  1944. 2.03 2.15 3.92 3.52 0.25 5.55 3.5 2.10 4.24 4.77 1.81 2.23 6.86 7.42 4.79 1.94 3.10 1.90 3.90 3.90 3.90 3.90 3.90 3.90 3.90 3	1920		5.88		5.68	5.26	5.78	1.56				5.46		45.81
1924. 3. 3.7 2.61 2.04 3.79 2.81 1.07 2.04 6.86 6.96 <b>0.06</b> 1.93 1.48 34.1925. 3.97 1.55 5.21 2.48 2.07 4.59 3.54 1.40 3.45 4.03 3.66 5.20 41.1926. 2.53 5.56 2.01 1.73 3.31 1.33 6.06 3.91 1.08 3.58 4.07 3.96 40.1927. 2.67 3.28 1.19 1.36 2.50 2.43 4.77 6.73 2.43 3.77 4.71 5.23 41.1928. 1.66 2.66 1.56 4.68 3.08 5.56 4.14 2.45 4.47 2.88 1.85 2.61 37.1929. 3.82 3.78 2.80 7.52 2.82 2.30 1.35 2.20 0.76 2.38 3.07 4.71 5.23 41.1928. 4.24 1.74 5.28 1.67 1.63 2.05 2.10 4.24 4.50 4.47 2.88 1.85 2.61 37.1930. 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.26 5.83 4.09 2.99 35.1931. 4.09 4.21 4.66 3.12 4.51 9.13 2.43 4.45 1.67 2.18 0.82 2.90 44.1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 47.1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 47.1935. 6.13 3.26 1.52 4.77 1.35 5.07 1.10 2.14 2.69 0.34 3.91 0.65 2.93 47.1935. 6.46 3.66 6.40 3.54 1.70 2.37 1.04 5.15 3.79 2.67 1.33 8.19 46.1937. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.17 3.69 3.95 4.66 5.09 43.1938 4.91 2.38 2.48 4.58 1.70 2.37 1.04 5.15 3.79 2.67 1.33 8.19 46.1937. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.17 3.69 3.95 4.66 5.09 43.1938 4.91 2.38 2.42 3.22 4.42 6.30 9.46 3.31 6.00 2.43 2.89 2.80 50.1937. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.17 4.7 1.14 2.91 32.18 3.99 5.23 1.83 9.5 5.23 2.18 3.79 5.23 4.54 1.70 2.70 0.75 2.14 1.10 1.47 1.14 2.91 32.49 1.18 1.92 2.18 3.79 5.23 4.54 1.20 2.70 0.75 2.14 1.10 1.71 1.19 2.18 2.18 2.99 2.80 50.1938 4.91 2.38 2.42 3.45 4.59 2.70 0.75 2.14 1.10 1.47 1.14 2.91 32.49 1.18 1.92 2.18 3.79 5.23 4.47 1.50 2.44 4.14 2.09 1.96 2.78 4.69 4.72 4.2 1.943. 3.74 1.23 4.02 2.64 4.56 1.49 3.91 1.28 1.44 1.48 2.29 2.16 0.99 3.2 1.944. 2.93 2.15 3.92 3.52 0.26 4.47 6.44 2.12 4.29 2.90 1.55 1.18 1.92 2.40 3.19 30.1944. 3.69 3.45 1.1947. 3.59 2.11 4.24 4.14 2.09 1.96 2.78 4.69 4.72 4.2 4.1943. 3.74 1.23 4.02 2.64 4.56 1.49 3.91 1.28 1.41 4.82 2.26 6.86 7.42 4.79 1.94 2.90 1.55 1.18 1.92 2.40 3.19 30.1945. 3.69 3.45 1.90 2.26 4.47 6.44 5.14 4.14 2.29 1.79 5.36 6.86 7.42 4.79 1.94 2.90 1.95 1.18 1.92 2.90 4.04 0.98	1921						3.58			2 66				42.96
1925.   3.97   1.55   5.21   2.48   2.07   4.59   3.54   1.40   4.54   4.03   3.66   5.20   41.   1926.   2.53   5.56   2.91   1.73   3.31   1.33   6.06   3.91   1.08   3.58   4.07   3.96   40.   1927.   2.67   3.28   1.19   1.36   2.50   2.43   4.77   6.73   2.43   3.77   4.71   5.23   41.   1928.   1.66   2.66   1.56   4.68   3.08   5.56   4.14   2.45   4.47   2.88   1.85   2.61   37.   1929.   3.82   3.78   2.80   7.52   2.82   2.30   1.35   2.22   0.76   2.38   3.01   4.43   37.   1930.   2.77   2.23   3.02   2.08   3.39   2.24   3.36   3.03   0.26   5.83   4.09   2.99   35.   1931.   4.09   4.21   4.66   3.12   4.51   9.18   2.43   4.45   1.67   2.18   0.82   2.90   44.   1932.   4.24   1.74   5.28   1.67   1.63   2.05   2.10   4.24   4.50   7.18   5.24   1.78   41.   1933.   2.04   3.77   6.80   7.37   2.74   1.22   2.63   3.41   10.94   3.11   0.65   2.93   47.   1934.   2.67   4.45   4.04   3.21   1.56   3.11   1.25   1.83   5.67   2.94   1.78   1.64   3.47   3.35   3.36   3.36   3.36   3.36   3.30   3.36   3.93   0.66   3.23   3.36   3.36   3.36   3.36   3.37   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36   3.36	1923					0.83	2.03		1.86					34.89
1925 3.97	1924	3.27			3.79	2.81		2.04	6.86		0.06	1.93	1.48	34.92
1927         2.67         3. 28         1. 19         1. 36         2. 50         2. 43         4.77         6. 73         2. 43         3. 77         4.71         5. 23         4.1           1928         1. 60         2. 66         1. 56         4. 68         3. 68         5. 56         4.14         2. 45         0. 76         2. 38         3. 77         2. 71         5. 23         4. 13         3.77         2. 71         5. 23         4. 13         3.77         2. 74         3. 75         2. 22         0.76         2. 38         3. 07         4. 43         3. 77         2. 74         4. 33         3. 30         0. 26         5. 53         4. 09         4. 21         4. 51         3. 30         0. 20         5. 53         4. 91         3. 30         0. 26         5. 53         4. 09         2. 29         44         4. 51         8. 082         2. 90         44         1932         4. 24         4. 10         4. 24         4. 50         7. 18         5. 24         1. 78         1. 1         1. 25         1. 33         5. 67         7. 18         5. 24         1. 77         1. 35         5. 07         1. 10         2. 14         4. 50         7. 18         5. 24         1. 77         1. 35	1925	3.97	1.55		2.48			3.54		3.45	4.03	3, 66	5.20	41.15
1928         1, 66         2, 66         1, 56         4, 68         3, 08         5, 56         4, 14         2, 45         4, 47         2, 88         1, 85         2, 61         3, 77           1920         3, 82         3, 78         2, 80         7, 52         2, 82         2, 30         1, 35         2, 22         0, 76         2, 83         3, 93         2, 44         3, 30         0, 26         5, 83         3, 00         2, 43         3, 93         2, 24         3, 36         3, 03         0, 26         5, 83         3, 00         2, 43         3, 30         0, 26         5, 83         3, 00         2, 99         35.           1931         4, 09         4, 21         4, 66         3, 12         4, 51         9, 13         2, 43         3, 63         3, 03         0, 26         5, 83         4, 09         2, 99         35.           1932         2, 04         3, 77         6, 80         7, 37         2, 74         1, 22         2, 63         3, 41         10.94         3, 11         0, 65         2, 23         11, 78         1, 64         44         1, 78         1, 64         44         1933         2, 67         4, 15         3, 17         3, 13         3, 57		2.53	5.50		1.73	3.31	1.33		5.91		3.58	4.07	3.90	40.03
1930. 2,77 2,23 3,30 2,20 8,339 2,24 3,36 3,03 0,26 5,53 4,09 2,99 35.  1931. 4,09 4,21 4,66 3,12 4,51 9,13 2,43 4,45 1,67 2,18 0,82 2,90 44.  1932. 4,24 1,74 5,28 1,67 1,63 2,05 2,10 4,24 4,50 7,18 5,24 1,78 41.  1933. 2,04 3,77 6,80 7,37 2,74 1,22 2,63 3,41 10,94 3,11 0,65 2,93 47.  1934. 2,67 4,45 4,04 3,21 1,56 3,11 1,25 1,83 5,67 2,94 1,78 1,04 3,4 1935. 6,13 3,26 1,52 4,77 1,35 5,07 1,10 2,14 2,69 0,34 3,91 0,66 3,2 1,936. 6,46 3,66 6,40 3,54 1,70 2,37 1,04 5,15 3,79 2,67 1,33 8,19 46.  1937. 3,93 11,31 3,57 5,34 2,52 3,47 1,17 4,97 3,59 3,95 4,56 5,09 43.  1939. 2,18 3,79 5,23 4,54 1,29 2,70 0,75 2,14 1,01 4,77 1,14 2,91 32.  1940. 1,68 4,78 3,83 4,58 3,28 1,80 3,17 0,85 2,32 0,76 6,24 2,76 3,194 1,94 1,2 3,3 4,54 1,70 2,43 4,29 2,90 1,55 1,18 1,92 2,40 3,19 30.  1941. 4,21 1,70 3,40 1,70 2,43 4,29 2,90 1,55 1,18 1,92 2,40 3,19 30.  1942. 3,69 3,45 7,01 1,59 2,11 4,24 4,14 2,09 1,06 2,78 4,60 4,72 4,2 1,94 1,94 2,03 2,14 2,03 2,14 4,04 2,03 2,14 4,02 2,04 4,56 1,49 3,91 1,44 4,82 2,05 2,14 4,50 4,94 2,93 3,52 4,47 6,44 2,12 4,47 1,81 2,23 2,16 0,99 3,1944. 2,03 2,15 3,92 3,52 0,26 1,49 3,91 1,28 1,41 4,82 2,16 0,99 3,1944. 2,03 2,15 4,49 1,90 2,02 4,47 6,44 2,12 4,27 1,81 2,23 6,86 7,42 4,76 1,94 2,03 2,14 1,83 0,00 1,50 2,62 4,47 6,44 2,12 4,27 1,81 2,23 6,86 7,42 4,74 1,94 2,03 2,15 4,08 3,08 3,08 3,08 1,945. 3,76 3,51 3,51 3,51 3,50 3,70 4,08 3,50 38 1,945. 3,67 4,09 1,90 2,02 4,47 6,44 2,12 4,27 1,81 2,23 6,86 7,42 4,74 1,94 2,03 2,15 4,09 1,90 2,02 4,47 6,44 2,12 4,27 1,81 2,23 6,86 7,42 4,74 1,94 2,20 2,04 0,34 0,88 3,60 38 1,945. 3,67 4,09 1,90 2,02 4,47 6,44 2,12 4,27 1,81 2,23 6,86 7,42 4,74 1,94 2,20 2,04 0,34 0,88 3,60 38 1,945. 3,67 4,09 1,90 2,02 4,47 6,44 2,12 4,27 1,81 2,23 6,86 7,42 4,74 1,94 2,20 2,04 0,34 0,88 3,60 38 1,945. 3,67 4,09 1,90 2,02 4,47 6,44 2,12 4,27 1,81 2,23 6,86 7,42 4,75 6,94 2,76 2,22 9,92 2,24 0,34 0,34 0,98 3,60 38 1,945. 3,67 4,09 1,90 2,02 4,47 6,44 2,12 4,27 1,81 2,23 6,86 7,42 4,76 3,39 3,40 3,40 3,30 3,40 3,40 3,80 3,60 38 3,40 3,40 3,40 3,40 3,40 3,40 3,40 3,4	1928	1,66	2, 66		4, 68	3. 08	5.56		2.45	4.47	2,88	1.85	2, 61	41.07 37.60
1930. 2.77 2.23 3.02 2.08 3.39 2.24 3.36 3.03 0.26 5.83 4.00 2.99 35. 1931. 4.09 4.21 4.66 3.12 4.51 9.13 2.43 4.45 1.67 2.18 0.82 2.90 44. 1932. 4.24 1.74 5.28 1.67 1.63 2.05 2.10 4.24 4.50 7.18 5.24 1.78 41. 1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.05 2.93 4.1935. 6.13 3.26 1.52 4.77 1.35 5.07 1.10 2.14 2.60 0.34 3.91 0.66 32. 1935. 6.13 3.26 1.52 4.77 1.35 5.07 1.10 2.14 2.60 0.34 3.91 0.66 32. 1936. 6.46 3.66 6.40 3.54 1.70 2.37 1.04 5.15 3.79 2.67 1.33 8.19 46. 1937. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43. 1938 4.91 2.38 2.42 3.22 4.42 6.30 9.46 3.31 6.00 2.43 2.29 2.80 50. 1939. 1930. 2.18 3.79 5.23 4.54 1.70 2.70 0.75 2.14 1.01 4.7 1.14 2.91 3.93 1.94 1.01 4.7 1.70 2.43 1.80 3.17 0.85 2.32 0.76 6.24 2.76 36. 1934. 3.93 3.45 7.01 1.59 2.11 4.24 4.14 2.09 1.96 2.78 4.69 4.72 42. 1943. 3.74 1.23 4.02 2.64 4.56 1.49 3.91 1.28 1.41 4.82 2.16 0.99 3.1944. 2.03 2.15 3.92 2.50 4.47 6.44 2.12 2.09 1.96 2.78 4.69 4.72 42. 1943. 3.74 1.23 4.02 2.64 4.56 1.49 3.91 1.28 1.41 4.82 2.16 0.99 3.1944. 2.03 2.15 3.92 2.50 4.55 5.35 1.61 1.79 5.36 2.85 5.85 5.88 2.83 3.7945. 3.67 4.09 1.90 2.02 4.47 6.44 2.12 2.2 9.92 2.04 0.34 3.95 3.95 3.94 3.99 3.95 3.7945. 3.67 4.09 1.90 2.02 4.47 6.44 2.12 2.2 9.92 2.04 0.34 3.95 3.60 3.60 3.81 1.947. 2.45 1.44 2.30 4.15 4.36 2.88 3.98 2.19 3.95 1.31 5.13 3.95 37.	1929	3.82	3.78	2.80	7.52	2.82	2.30	1.35	2,22	0.76	2.38	3.01	4.43	37.19
1933 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.65 2.93 47. 1933 2.67 4.45 4.04 3.21 1.56 3.11 1.25 1.83 5.57 2.94 1.78 1.64 34. 1935 6.13 3.26 1.52 4.77 1.35 5.07 1.10 2.14 2.69 0.34 3.91 0.66 32. 1936 6.46 3.66 6.40 3.54 1.70 2.37 1.04 5.15 3.79 2.67 1.33 8.19 46. 1937 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43. 1938. 4.91 2.38 2.42 3.22 4.42 6.30 9.46 3.31 6.00 2.43 2.89 2.80 5.93 1.93 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32. 1940 1.68 4.78 3.83 4.58 3.28 1.80 3.17 0.85 2.32 0.76 6.24 2.76 36. 1941 4.21 1.70 3.40 1.70 2.43 4.29 2.90 1.55 1.18 1.22 2.40 3.19 30. 1942. 3.69 3.45 7.01 1.59 2.11 4.24 4.14 2.09 1.96 2.78 4.69 4.72 42. 1943. 3.74 1.23 4.02 2.64 4.56 1.49 3.91 1.28 1.41 4.82 2.16 0.99 3.79 4.94 1.94 2.03 2.15 3.92 3.52 0.26 1.47 6.44 2.12 2.2 2.9 2.2 2.2 2.2 2.2 2.2 2.2 3.3 3.9 3.1945. 3.67 4.09 1.90 2.02 4.47 6.44 2.12 2.2 2.9 2.2 2.04 3.3 0.86 3.50 3.1947. 2.45 1.44 2.30 4.15 4.36 2.88 3.98 2.19 3.95 1.13 5.13 3.95 37.  M*ns**3.55 3.23 3.76 3.51 3.15 3.20 3.32 3.64 3.15 3.22 3.61 3.39 40.	1930				2.08		2.24	3.36		0.26	5.83	4.09	2.99	35.29
1933. 2.04 3.77 6.80 7.37 2.74 1.22 2.63 3.41 10.94 3.11 0.55 2.93 47. 1934. 2.67 4.45 4.04 3.21 1.56 3.11 1.25 1.83 5.67 2.94 1.78 1.64 3.4 1935. 6.13 3.26 1.52 4.77 1.35 5.07 1.10 2.14 2.69 0.34 3.91 0.66 32. 1936. 6.46 3.66 6.40 3.54 1.70 2.37 1.04 5.15 3.79 2.67 1.33 8.19 46. 1937. 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43. 1938 4.91 2.38 2.42 3.22 4.42 6.30 9.46 3.31 6.00 2.43 2.89 2.80 50. 1939. 2.18 3.79 5.23 4.54 1.29 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32. 1940. 1.68 4.78 3.83 4.58 3.28 1.80 3.17 0.85 2.32 0.76 6.24 2.76 36. 1941. 4.21 1.70 3.40 1.70 2.43 4.29 2.90 1.55 1.18 1.92 2.40 3.19 30. 1942. 3.69 3.45 7.01 1.59 2.11 4.24 4.14 2.09 1.96 2.78 4.69 4.72 42. 1943. 3.74 1.23 4.02 2.64 4.56 1.49 3.91 1.28 1.41 4.22 2.16 0.99 32. 1944. 2.03 2.15 3.92 3.52 0.25 1.49 3.91 1.28 1.41 4.22 2.16 0.99 32. 1944. 3.64 4.91 1.90 2.02 4.47 6.44 2.12 4.7 1.81 2.23 6.86 7.42 4.7 1.94 1.94 1.94 1.94 1.94 1.94 1.94 1.94					3.12	4.51		2.43			2.18		2,90	44. 17
1935 6.13 3.26 1.52 4.77 1.35 5.07 1.10 2.14 2.69 0.34 3.91 0.66 32. 1936 6.46 3.66 6.40 3.54 1.70 2.37 1.04 5.15 3.79 2.07 1.33 8.19 46. 1937 3.93 1.31 3.57 5.34 2.52 3.47 1.17 4.97 3.69 3.95 4.66 5.09 43. 1938 4.91 2.38 2.42 3.22 4.42 6.30 9.46 3.31 6.00 2.43 2.89 2.80 50. 1939 2.18 3.79 5.23 4.54 1.20 2.70 0.75 2.14 1.01 4.77 1.14 2.91 32. 1940 1.68 4.78 3.83 4.58 3.28 1.80 3.17 0.85 2.32 0.76 6.24 2.76 3.69 1.94 1.78 1.94 1.29 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.29 1.25 1.25 1.29 1.25 1.29 1.25 1.25 1.29 1.25 1.29 1.25 1.25 1.29 1.25 1.25 1.29 1.25 1.25 1.29 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25				6.80						10.94	3. 11			41.65
1935.         6.13         3.26         1.52         4.77         1.35         5.07         1.10         2.14         2.69         0.34         3.91         0.66         32         1.93         0.66         32.66         0.40         3.54         1.70         2.37         1.04         5.15         3.79         2.67         1.33         8.19         46.           1937.         3.93         1.31         3.57         5.34         2.52         3.47         1.17         4.97         3.69         3.55         4.66         5.09         43           1938.         4.91         2.38         2.42         3.22         4.42         6.30         9.46         3.31         6.00         2.43         2.89         2.80         50         4.66         5.09         4.83           1939         2.18         3.79         5.23         4.58         1.28         1.80         3.17         0.85         2.32         0.76         6.24         2.91         3.29           1940         1.68         4.73         3.83         4.58         1.81         1.82         1.95         1.11         4.24         4.11         1.01         4.71         1.14         2.91         3.22 <td>1934</td> <td>2.67</td> <td>4 • 45</td> <td>4.04</td> <td>3.21</td> <td>1.56</td> <td>3.11</td> <td>1.25</td> <td></td> <td>5.67</td> <td></td> <td></td> <td>1.64</td> <td>34.15</td>	1934	2.67	4 • 45	4.04	3.21	1.56	3.11	1.25		5.67			1.64	34.15
1938	1935	6.13	3.26	1.52	4.77	1.35	5.07	1.10	2.14	2.69	0.34	3.91	0.66	32.94
1938     4,91     2,38     2,42     3,22     4,42     6,30     9,46     3,31     6.00     2,43     2,80     5,0     2,80     50,0       1939     2,18     3,79     5,23     4,54     1,29     2,70     0.75     2,14     1,01     4,77     1,14     2,91     32       1941     1,68     4,78     3,83     4,58     3,28     1,80     3,17     0.85     2,32     0,76     6,24     2,76     36       1941     4,21     1,70     3,40     1,70     2,43     4,29     2,90     1,55     1,88     1,92     2,40     3,19     30       1942     3,74     1,23     4,02     2,64     4,56     1,49     3,91     1,28     1,41     4,82     2,16     0,99     32       1943     3,74     1,23     4,02     2,64     4,56     1,49     3,91     1,28     1,41     4,82     2,16     0,99     32       1945     3,67     4,09     1,90     2,02     4,47     6,44     2,12     4,27     1,81     2,23     6,86     7,42     4       1947     2,45     1,44     2,30     4,15     4,36     2,88     3,98								1.04		3.79		1.33		46.30
1940. 1.68 4.78 3.83 4.58 3.28 1.80 3.17 0.85 2.32 0.76 6.24 2.76 36.  1941. 4.21 1.70 3.40 1.70 2.43 4.29 2.90 1.55 1.18 1.92 2.40 3.19 30.  1042 3.69 3.45 7.01 1.59 2.11 4.24 4.14 2.09 1.96 2.78 4.69 4.72 42.  1943. 3.74 1.23 4.02 2.64 4.56 1.49 3.91 1.28 1.41 4.82 2.16 0.99 3.2.  1944. 2.03 2.15 3.92 3.52 0.25 5.35 1.61 1.79 5.36 2.58 5.68 2.83 37.  1945. 3.67 4.09 1.90 2.02 4.47 6.44 2.12 4.27 1.81 2.23 6.86 7.42 47.  1946. 4.18 3.00 1.50 2.62 4.91 2.76 2.22 9.92 2.04 0.34 0.98 3.60 38.  1947. 2.45 1.44 2.30 4.15 4.36 2.88 3.98 2.19 3.95 1.13 5.13 3.95 37.			2, 38	2.42			6.30	9.46			2.43	2.80	2.80	43.67 50.54
1940. 1.68 4.78 3.83 4.58 3.28 1.80 3.17 0.85 2.32 0.76 6.24 2.76 36. 1941. 4.21 1.70 3.40 1.70 2.43 4.29 2.90 1.55 1.18 1.22 2.40 3.19 30. 1042 3.69 3.45 7.01 1.59 2.11 4.24 4.14 2.09 1.96 2.78 4.69 4.72 42. 1943. 3.74 1.23 4.02 2.64 4.56 1.49 3.91 1.28 1.41 4.82 2.16 0.99 3.21 1944. 2.03 2.15 3.92 3.52 0.25 5.35 1.61 1.79 5.36 2.85 5.68 2.83 37. 1945. 3.67 4.09 1.90 2.02 4.47 6.44 2.12 4.27 1.81 2.23 6.86 7.42 47. 1946. 4.18 3.00 1.50 2.02 4.47 6.44 2.12 4.27 1.81 2.23 6.86 7.42 47. 1947. 2.45 1.44 2.30 4.15 4.36 2.88 3.98 2.19 3.95 1.13 5.13 3.95 37. 1947. 2.45 1.44 2.30 4.15 4.36 2.88 3.98 2.19 3.95 1.13 5.13 3.95 37.	1939	2.18	3.79	5. 23	4.54	1.20	2.70	0.75	2.14	10.1	4.77	1.14	2.91	32, 45
1941.       4.21       1.70       3.40       1.70       2.43       4.29       2.90       1.55       1.18       1.92       2.40       3.19       30.         1942.       3.69       3.45       7.01       1.59       2.11       4.24       4.14       2.09       1.96       2.78       4.69       4.72       42.         1943       3.74       1.23       4.02       2.64       4.56       1.49       3.91       1.28       1.41       4.82       2.16       0.99       32.         1944       2.03       2.15       3.92       3.52       0.25       5.35       1.61       1.79       5.36       2.88       5.68       2.83       37.         1945       3.67       4.09       1.90       2.02       4.47       6.44       2.12       4.27       1.81       2.23       6.86       7.42       47.         1947       2.45       1.44       2.30       4.15       4.36       2.88       3.98       2.19       3.95       1.13       5.13       3.99       40.         M*ns       *3.55       3.23       3.76       3.51       3.51       3.15       3.22       3.64       3.15       3.22	1940	1.68		3.83	4.58	3.28		3.17	0.85	2.32	0.76	6.24	2.76	36.05
1943. 3.74   1.23   4.02   2.64   4.56   1.49   3.91   1.28   1.41   4.82   2.16   0.99   32.   1944. 2.03   2.15   3.92   3.52   0.25   5.35   1.61   1.79   5.36   2.58   5.68   2.83   37.   1945. 3.67   4.09   1.90   2.02   4.47   6.44   2.12   4.27   1.81   2.23   6.86   7.42   47.   1946. 4.18   3.00   1.50   2.62   4.91   2.76   2.22   9.92   2.04   0.34   0.98   3.60   38.   1947.   2.45   1.44   2.30   4.15   4.36   2.88   3.98   2.19   3.95   1.13   5.13   3.95   37.    M'ns   3.55   3.23   3.76   3.51   3.15   3.20   3.32   3.64   3.15   3.22   3.61   3.39   40.		3 60		3.40						1.18	1.92			30.87
1944. 2.03 2.15 3.92 3.52 0.25 5.35 1.61 1.79 5.36 2.58 5.68 2.83 37. 1945. 3.67 4.09 1.90 2.02 4.47 6.44 2.12 4.27 1.81 2.23 6.86 7.42 47. 1946. 4.18 3.00 1.50 2.62 4.91 2.76 2.22 9.92 2.04 0.34 0.98 3.60 38. 1947. 2.45 1.44 2.30 4.15 4.36 2.88 3.98 2.19 3.95 1.13 5.13 3.95 37.   M'ns *3.55 3.23 3.76 3.51 3.15 3.20 3.32 3.64 3.15 3.22 3.61 3.39 40.			3. 45 1.23		2,64						4.82			42.47 32.25
1945. 3.67 4.09 1.90 2.02 4.47 6.44 2.12 4.27 1.81 2.23 6.86 7.42 47.1946. 4.18 3.00 1.50 2.62 4.91 2.76 2.22 9.92 2.04 0.34 0.98 3.60 38.1947. 2.45 1.44 2.30 4.15 4.36 2.88 3.98 2.19 3.95 1.13 5.13 3.95 37.  M'ns *3.55 3.23 3.76 3.51 3.15 3.20 3.32 3.64 3.15 3.22 3.61 3.39 40.						0. 25	5.35	1.61						37.07
1940 4.18 3.00 1.50 2.02 4.91 2.70 2.22 9.92 2.04 0.34 0.98 3.00 38. 1947 2.45 1.44 2.30 4.15 4.36 2.88 3.98 2.19 3.95 1.13 5.13 3.95 37.   M'ns *3.55 3.23 3.76 3.51 3.15 3.20 3.32 3.64 3.15 3.22 3.61 3.39 40.	1945	3.67	4.09	1.90	2. 02	4. 47	6. 44	2. 12	4.27	1.81	2. 23	6,86	7.42	47.30
M'ns *3.55 3.23 3.76 3.51 3.15 3.20 3.32 3.64 3.15 3.22 3.61 3.39 40.							2.70							38.07
	1947	2. 45	1.44	2, 30	4.15	4. 30	2. 88	3.98	2. 19	3. 95	1.13	5. 13	3. 95	37.91
		*3.55	3.23	3.76	3.51	3.15	3.20	3 - 32	3.64	3.15	3.22	3. 61	3.39	40.73
													3.66	42.89
			1		-	1								

Note.—Bold-faced figures indicate greatest and least monthly and annual amounts. \* Computed from the Weather Bureau records of 77 yrs. † Averages 130 yrs. From 1818 to 1822, Dr. Enoch Hale; from 1823 to 1865, Jonathan P. Hall; from 1866 to 1870, Superintendent of Sewers.

BOSTON, MASS.
MAXIMUM TEMPERATURE FOR EACH DAY OF YEAR

		Jate	-	10	. 00	4	5	9.	<u>r</u>	œ	6	2	=	2	13	14	15	91	17	81	61	00	21	22	23	24	25	98	27	88	.29	5:5	7
				_		·		÷	•	·		÷	-			•	•	-	÷	·	÷		÷	÷	÷		÷	-	÷	÷	÷	-	•
	December	. Year									_							-	-	-	-	-	-				_				1061	_	
	Dec	Мах	67	65	65	62	59	69	99	65	64	25	89	89	*62	99	63	09	09	19	64	61	60	28	64	26	65	09	09	9	99	20	CO
	nber	Year	1927	1929	1936	1903	1938	1938	1938	1938	1945	1931	1935	1909	1885	1905	1905	19:27	19:28	19.27	1941	1941	1931	1931	1931	1931	1931	1946	1896	1896	1916	1881	:
	November	Max.	7.4	12	75	74	72	55		1.4	17	×	99*	9/	69	89	20/	9/	92	69	7.5	*71	74	7.	77	7.7	89	*67	7.5	259	64	20	:
	ber	Year	1881	1922	1922	1898	1922	1946	1946	1879	1935	1939	1914	1928	1930	1923	1897	1897	1947	1947	1945	1947	1920	19.50	1947	1900	1899	1899	1947	1927	1918	1918	0561
1947	October	Max.	9	£ 52	85	85	87	98	98*	20 20 20	85	ž	ī	2 2 2 2	87	8	98	88	88	85	₩,	×	22.	8/	× :	21	12	7-1	7.8	<u>~</u>		6.5	10
31,	ember	Year	28	676	6761	1884	0881	0881	1881	1872	897	1931	1931	1930	1877	1931	1915	1939	1915	9061	1946	885	202	6881	1895	1914	97.6	1881	1933	1881	1945	1761	:
BER	Septen	Max.			-	_					-	_				-	_				_		-	_		_	and the same		-	_	22		:
CEM		Year	216	917	930	876	944	931	924	916	87.5	964	944	944	944	0 17	944	944	944	884	906	937	987	686	280	947	947	006	9.3	877	1945	100	100
DE	August	Max. Y	_	_		_									-	-		-	-	_	_	_		_					_		94		_
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MARC	June	. Year	1879	1895	1919	1925	1919	1925	1925	1933	1922	1933	1894	1933	1892	1892	1945	1891	1894	1929	1923	1931	1923	1941	1888	7.00	1943	1946	1941	1901	1933	1340	:
MM	P	Max	96	96	86	96	96	100	253	93	357	95	93	95	94	96	96	96	32	94	96	97	95	GA C	36	5.0	76	94	96	97	66	G	:
FRO	ay	Year	1899	1930	1943	1880	1919	1930	1930	1895	1889	9681	1895	1947	1947	1879	1900	1937	1932	1936	1903	1933	1921	1841	1941	1950	1932	1880	1880	1931	1931	1929	101
SON	May	Max.	68	916	*85	88	98	06	35	200	9.5	25 4.00	6,	#X#	20	98	93		# 024 104	6	× 000	3.8	* 450 500	76.	36	7.0		97	96	92	*94 06	96	3
EXTE	Ţ.	Year	1918	1918	1892	1923	1928	1928	1929	1929	1921	1922	1887	1945	1896	1945	1896	1896	1931	9681	1914	1941	1923	1920	1908	1000	1601	1872	1935	1938	1903	7101	:
3D E	Apri	Max.	92	15	11	7.5	200	85	<del>2</del> 6 6	χο I	7		75	85	× ×	81	8.7	79	73	200	200		200	0 0	000	70	0 0	200	<b>x</b> 0	T 6	200	90	
ECO	ch	Year	1902	1874	1923	1946	1880	1894	9161	18/8	1321	18/8	1927	1905	1946	1946	1945	1935	1935	1934	1903	1940	1261	1929	1938	1920	1910	1822	0161	1940	1945	1936	
24	March	Max	62	59	(.9*	*62	75	200	69 69	63	200	17		- 60 1	73	9/2	7.7	71	3	200	77	28	000	50	200	100	0 6	2 ;	9 :	200	30.	20.	2
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	Date -		1:-	2	÷.	4.	2	9 1					11		13	14	15	16.				02	. 77		94	96			100	000	30	31	

\* Has occurred on previous dates also.

BOSTON MASS.

MINIMUM TEMPERATURE FOR EACH DAY OF YEAR
RECORD RYTENDS FROM MARCH 1, 1872 TO DECEMBER 31, 1947

Min.   Year   Min.   Year   Min.   Year	Min. 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Year 1886 1886 1886 1872 1872 1872 1873 1873 1873 1873 1873 1873 1873 1873	min   min	Year   M   Year   M   1923   1879   1874   1888   1948   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1909   1	Min. Year  83 1874 83 1874 83 1917 83 1907 83 1907 83 1907 83 1907 83 1907 83 1907	min - 4544484 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Year 1945 1884 1945 1945 1932 1932 1932 1905 1881 1881	Min. 522 552 552 554 554 555 554 555 554 555 555	Year 1885 1914 1914 1909 1909 1890 1890 1890 1890 1890 1890	Min. 55	Year	M 03 04 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Year 1887 1898 1898 1898 1903 1888 1888	Min. 28 28 28 28 28 28 28 28 28 28 28 28 28	Year   1947   1899   1888   1881   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   1883   18	Min. Y 26 1 26 1 27 1 27 1 21 1 1 1 1	Year M 1885 1879 1875 1879 1879 1879	Min. V 0 4 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Year 1875 1876 1890 1926 1935 1906 1906 1906 1906 1902 1902 1902 1902	Date 0.1.33
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-10 1886 -11 -8 1914 -13 -8 1914 -13 -8 1920 -14 -4 1907 -11 -1 1994 * 4 -8 1994 * 4 -8 1994 * 4 -8 1888 6 -8 1888 6 -9 18	* E E E E E E E E E E E E E E E E E E E	1885		200	_		1906	554 *55	1886		1913		1917	_	1881	_	-			=
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-13 1882 -7	9	1874	-	885	_	_	1932	54	1893	_	1873	-	1885	-	1939		_	_	_	24
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-5 1935 2	=======================================	1923	-	947	_	_	1918	54	1884		1885	_	1947		1936	_	-	_	=	28
—6 1888   3	4	1923	-	606	-		1919	55	1880	_	1908	_	1914		1876	_	-	_		29
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o Î	. 15	1923	•	:	_	:	:	24	1895		1912	:	:	_	1904		:		Ė	31

Has occurred on previous dates also.

## SEASONAL SNOWFALL.

1891-2	Years	Oct.	Nov.	Dec.	Jan,	Feb.	Mar.	Apr.	May	Season
1872-3	1871-2	130	T.					To		44.3
1874-5	1872-3	0	7.5	13.7	20.3	22.7	3.9	28, 3	0	96.4
1876-6.	1873-4		T.			0.3		6.3		50.0
1876-7.   T.   0.8   14.3   12.6   T.   0.0   0.2	1875-6	_				] T.	15.5	T.		42.3
1879-9	1876-7		T.				T.			27.7
1889-0										43·4 54·2
1881-2.	1879-0			19.2			3.1			56.8
1882-3										40.4
1883-1	1882-3									38.9 66.0
1885-6.   O   T.   18.5   16.0   12.0   11.5   15.0   0   7.   73   1886-7.   O   T.   6.5   13.1   9.6   12.0   T.   T.   73   1887-8.   O   4.8   T.   4.5   7.5   2.2   O   O   O   O   O   O   O   O   O	1883-4	0.5	4.8	2.3	3.9	3.3	9.5	T.	0	24.3
1886-7.   O   T.   6.5   13.1   9.6   12.0   T.   T.   41   1887-8.   O   4.8   T.   4.5   7.5   2.2   O   O   O   1888-9.   O   T.   4.0   8.5   6.3   20.3   O   O   39   1889-9.   O   T.   4.10   8.5   6.3   20.3   O   O   39   1890-1.   T.   O   T.   12.0   11.5   20.0   O   O   43   1891-2.   O   3.0   2.0   14.6   8.5   8.5   8.5   8.5   8.5   7.9   O   O   43   1891-2.   O   0.4   18.5   15.0   21.6   T.   8.5   O   64   1893-4.   O   6.67   13.5   13.9   8.8   3.8   0.5   O   47   1894-5.   O   T.   5.2   9.5   9.5   9.5   14.5   O.2   O   38   1895-6.   O   2.2   8.6   18.2   10.9   3.3   T.   O   31   1896-7.   O   8.1   7.8   16.3   11.5   6.0   2.2   O   51   1897-8.   O   17.8   7.7   6.1   30.2   9.3   T.   O   51   1898-9.   T.   O   O   1.1   T.   8.3   9.0   7.6   O   T.   25   1899-0.   O   O   1.0   6.8   7.8   8.8   T.   O   O   T.   25   1900-1.   O   O   O   1.0   6.8   7.8   8.8   T.   O   O   T.   25   1900-1.   O   O   O   1.0   6.8   7.8   8.8   T.   O   O   T.   25   1900-1.   O   O   O   1.0   6.8   7.8   8.9   1.4   O   7.3   1900-1.   O   O   O   0   0   0   0   0   0   0	1884-5		0.5	5.5						36.0
1888-9			Т.	6.5				T.		41.2
1889-0			4.8		4.5	7.5				19.0
1800-1	1880-0		T.	14.5	14.8					39.1 59.3
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1890-1		0	T.	12.0	11.5	20.0	0		43.5
1803-4	1891-2			2.0		35.3	4.5	7.9		67.3
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1893-4	-	6.7				3.8			64.0 47.2
1895-6	1894-5	0			9.5	9.5	14.5	0.2	0	38.9
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1895-6				18.2		3.3			43.2
1898-0	1897-8			7.7						51.9 71.1
1906-	1898-9		0.1			9.0	7.6	0	T.	25.0
1902-3	1899-0									17.5
1902-3	1901-2				4.2		0.3			42.0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1902-3		0		35. 7	16.5	8.9	1.4		73.1
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1903-4				6.1	6.1		T.		44·9 37.6
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1005-6									67.9
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1906-7		0			9.3		0.8		26.2
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						12.6	3.1			20.1 37.0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1909-0		1	8.2					_	40.6
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		1			0			0.5		1 6 K
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1910-1		0.3		0.3				-	19.4
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1912-3	0.4	T.	0.9	10.3	20.6	5.2	2.0		39 - 4
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$							33 0			22.3
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1915-6									54.2
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1916-7		2.2	7.0		5.7		4.2		45.7
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	TO18-0				24.8					21.1 73.4
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1919-0	,	8.1		3.6			T.		34.1
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1920-1							3.3		37.6
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1022-3		T.			10.4				32.3
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1923-4	0		0, 2	20.7	T.			0	21.4
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1924-5		T.							38, 3
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1925-7			T				T.		20.8
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1927-8			4.6		21.4	4.0			45.5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1928-9							т.		31.4
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1930-1		T.		6.2		5.8	Ť.		24.2
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1931-2				1.3		5.1	5.0		40.6
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1932-3		2.9 T.							62.7 45.4
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1934-5			0.3	12.7	12.6	2.9	T.	0	29.5
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1025-6			0.7			1.9	т.		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1937-8		10.0	1.3	7.5	4.7	16.5			45·7 40.2
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1038-9	0	0.1	6 5	4.6	23 8	0.3	1.5	0	37 - 7
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1939-0		8.5 T	4.5		1.3	13. 1			47.8
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	IO/I-2		T.	6,8	26.4		8.0	T.	-	45.7
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1042-3		T.	0.3	5.1	9.6	12.7		0	27.7
1945-6	1943-4			0.9	24.3	20, 3		- 1		59. 2 50. 8
1946-7			T.	4.9	4.0					19.4
1947-8	1946-7		I.I	26.8						
	1947-8								·	
Means, T. 1.7 7.8 11.8 12.5 7.2 2.0 T. 43.	Means	T.	1.7	7.8	11.8	12.5	7.2	2.0	T.	43.0

Daily Maximum Temperature, 1947

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	30 32 37 30 37 32 39 40 39 40 40 39 40 46 30 38 39 45 41 45 53 60 60 41 50 61	30 39 51 51 27 26 36 36 37 37 45 37 53 50 45 43 43 52 25 32 32 32 32 33 34 40 37 37 37	36 41 43 37 43 48 48 45 41 46 40 40 47 56 57 57 57 43 49 49 49 49 49 49 49 49 49 49 48 56 86 86 86 86 86 86 86 86 86 86 86 86 86	54 47 42 50 45 74 61 56 61 77 77 61 44 66 47 77 55 54 42 38 44 45 51 52 54 54 54 55 55 42 56 45 57 44 57 45 45 45 45 45 45 45 45 45 45 45 45 45	59 42 46 55 55 70 63 48 55 53 64 87 72 64 87 77 79 78 78 73 70	78 79 69 62 68 87 65 67 65 77 80 67 74 77 71 80 82 87 87 88 88 88 88 88 88 88 88	86 83 79 74 83 85 77 73 86 84 88 87 87 87 87 87 87 87 87 87 88 89 88 89 88 89 88 89 88 89 88 88 88	72 79 75 83 88 86 74 76 99 97 77 90 77 72 92 92 92 92 92 93 94 77 72 96 97 77 72 98 97 72 97 72 97 72 97 72 97 97 97 97 97 97 97 97 97 97 97 97 97	776 84 86 76 87 74 75 86 88 88 88 88 88 87 77 74 79 72 60 59 56 57 58 64 57	59 60 61 775 774 80 775 62 63 666 70 4 80 83 89 82 82 774 84 84 84 85 96 66 70 68 51 50 50 50 50 50 50 50 50 50 50 50 50 50	50 58 59 55 53 56 59 49 49 49 49 40 41 44 42 45 44 45 52 40 47 48 48 48 48 49 49 49 49 49 49 49 49 49 49 49 49 49	40 40 60 52 31 30 45 43 37 38 39 34 43 37 38 39 46 60 38 38 44 31 36 36 37 38 38 38 38 38 38 38 38 38 38
Mean	40. 9	37.8	45.0	55. 7	65.9	74.4	82. 3	81.8	73. 4	71.5	47.7	37 9

Maximum temperature for year 99°, August 13th.

Daily Minimum Temperature, 1947

			-									
Date	January	February	March	April	May	June	July	August	September	October	November	December
1	13 19 27 20 17 22 23 28 8 8 25 18 11 30 13 31 38 29 20 14 15 28 37 33 33 34 33 34 33 34 38 24,3	24 20 19 32 32 13 10 26 15 11 23 25 20 18 31 30 32 31 31 30 8 11 11 11 11 11 11 11 11 11 11 11 11 1	22 34 30 28 29 37 33 27 30 31 32 39 38 29 29 29 25 24 30 35 31 34 42 39 38 29 29 37 38 38 29 38 38 29 38 38 38 38 38 38 38 38 38 38 38 38 38	33 37 30 31 38 41 41 37 37 45 55 42 40 43 39 38 41 40 32 32 32 40 33 41 41 40 34 41 42 40 40 36 37 50 50 50 50 50 50 50 50 50 50 50 50 50	38 40 40 44 44 46 45 44 40 37 36 42 58 555 39 52 48 50 48 50 55 56 66 65 54 48 47.9	52 60 49 46 50 55 248 47 57 57 57 57 563 60 65 66 66 65 53 57 52 55 56 68 69 70 56.3	69 67 61 62 66 64 63 65 69 69 71 73 71 73 71 63 63 62 66 67 67 67 67 67 67 67 67 67 67 67 67	57 54 60 63 64 66 68 66 68 66 65 71 77 4 62 69 71 73 68 69 69 69 66 68 66 69 64 64 66 66 66 66 66 66 66 66 66 66 66	58 64 64 65 66 66 66 66 66 66 66 68 61 65 65 49 47 40 46 40 56.1	38 47 47 48 53 58 60 61 48 42 48 50 57 54 56 65 65 65 65 64 48 39 40 57 46 48 48 48 57 48 48 48 57 48 48 48 48 48 48 48 48 48 48 48 48 48	38 37 39 46 47 44 41 41 43 36 33 33 31 32 26 33 33 30 28 29 29 25 34.7 34.7 38.7 38.7 38.7 38.7 38.7 38.7 38.7 38	23 30 40 21 18 22 26 33 28 25 21 12 28 35 31 19 18 17 26 21 21 22 18 25 21 21 21 21 21 21 22 26 33 28 35 31 31 31 31 31 31 31 31 31 31
Mean	24. 3	21. 4	50. 4	95. 0	47.9	50.5	00. 5	04.5	50.1	31.0	34.7	25.0

Minimum temperature for year 8°, February 20th.

# Daily Precipitation, 1947

Day
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

T. indicates a trace.

## Average Monthly and Seasonal Degree Days (Base 65°F.)

Season	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Sea-
1916-16 1916-17 1917-18 1918-19 1918-19 1918-19 1920-21 1921-22 1922-23 1924-25 1924-25 1925-26 1925-26 1926-27 1927-28 1928-29 1928-29 1939-31 1931-32 1931-32 1931-33 1931-33 1931-33 1931-33 1931-33 1931-34 1931-39 1931-31 1931-34 1931-34 1931-34 1931-34 1931-34 1931-34 1931-34 1931-34 1931-34 1931-34 1931-34 1931-34 1931-34 1931-34 1931-34 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-36 1931-3			88 85 165 165 145 82 52 54 147 107 107 107 107 107 107 107 107 107 10	295 310 407 293 316 173 336 301 328 484 437 225 4476 369 369 328 381 476 476 295 295 358 388 450 299 288 365 358 368 368 289 464 476 476 476 476 476 476 476 476 476	592 675 766 601 669 700 703 637 611 614 623 466 612 617 800 583 564 727 667 767 668 769 667 715 715	957 1007 1281 938 1126 910 1040 1057 760 1052 973 1126 899 983 884 884 881 1135 959 951 953 921 1097 1062 1133 940 1073	987 1079 1361 983 1366 983 1020 1172 1179 1053 1066 991 1118 1030 816 1098 1142 854 1147 1302 1228 1132 1226 1051 1280 1001	1142 1096 1065 907 1085 909 921 11163 754 1041 1042 866 968 997 874 1332 1040 11224 891 920 1029 998 1063 965 1030 965 1030 992	1066 862 876 752 795 582 786 965 882 867 781 829 910 910 910 928 823 3711 954 802 987 990 990 996 884 884 884 884 884 884 884 885 885 885	582 631 514 600 401 491 519 533 463 463 601 510 524 601 527 556 640 649 466 649 466 649 668 388 585 587	210 443 107 2111 325 269 147 252 242 248 307 299 159 159 159 222 212 199 159 213 210 291 133 318 210 291 313 213 214 215 215 216 217 217 217 218 218 218 218 218 218 218 218 218 218	114 72 95 73 102 35 57 50 69 21 14 44 14 35 58 96 61 61 18 86 64 74 86	6033 6260 6637 5447 6466 5053 5613 5613 5613 5454 6247 5597 5576 55397 5576 6524 6420 66524 66524 6462 66524 6462 66524 6457 6135 5984 5984 6462 6462 6462 65797 65776 65776 65495
**Normal	7	15	98	338	647	1008	1108	1025*	841	538	245	66	5936

Daily Cloudiness, 1947 [Daylight hours; scale 0 to 10]

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	10 10 10 10 5 3 3 8 9 1 0 4 4 7 7 10 10 10 10 10 10 10 10 4 7 7 2 2 8 8 8 10 10 10 10 10 10 10 10 10 10 10 10 10	0 4 4 4 10 7 5 8 8 10 1 1 4 4 1 1 1 4 6 6 10 10 10 0 1 1 7 7 10 9 3 1 1 8 8 3 7 7 6 6	5 10 8 7 6 5 5 9 9 9 9 9 9 9 9 9 9 9 9 10 14 4 0 6 6 6 10 10 10 10 10 10 10 10 10 10 10 10 10	7 10 1 4 4 10 8 3 4 4 10 3 3 3 10 10 10 10 10 10 10 10 10 10 10 10 10	10 10 10 10 9 10 7 10 5 7 0 6 8 8 9 8 8 9 8 0 6 4 4 10 9 7 7 7 7 7 7 9 8 9 8 9 9 8 9 9 7 7 7 7	6 10 10 2 9 9 9 10 9 4 6 6 5 2 10 5 5 5 8 7 7 7 1 10 4 4 10 8 7 7 2 6 6 2 4	5 4 7 7 8 4 4 7 7 8 8 8 8 8 7 7 2 4 4 7 7 8 8 7 9 9 8 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 10 9 9 2 2 3 3 3 8 7 3 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 8 10 9 9 9 9 8 10 9 9 9 9 8 10 9 9 9 9 8 10 9 9 9 9 8 10 9 9 9 9 8 10 9 9 9 9 9 8 10 9 9 9 9 8 10 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	1 2 6 6 0 0 0 1 6 8 8 10 5 5 5 0 1 1 0 0 2 2 10 6 6 5 7 7 10 9 9 2 3 1 1 1 5 8 8 8 8 3 7 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2 9 9 3 1 9 9 3 6 6 4 1 1 1 2 2 1 1 4 10 7 7 9 9 10 10 2 9 9 10 1 2 1 7 7	3 9 4 0 1 1 4 4 0 9 9 8 1 1 1 1 0 7 7 0 0 0 0 1 1 6 6 8 2 2 4 4 9 9 10 9 9 10 9 9 10 9 10 9 10 9 10	8 1 9 10 10 10 9 6 6 9 2 1 8 10 1 1 7 8 1 1 1 2 2 6 6 1 9 9 8 8 8 8 6 6 9 6 6 4	1 7 8 3 10 3 6 10 2 2 5 5 3 1 1 4 8 5 5 2 7 7 3 0 3 3 1 10 10 9 0 0 1 1 8
Mean	6. 5	5.4	5.7	6.7	7.0	6. 1	6.5	4. 4	4.6	4.0	5.9	4.7

Note.—Clear (0 to 3). Partly cloudy (4 to 7) Cloudy (8 to 10).

# Normal Daily Mean Temperatures, 46 Years (1875-1921)

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27 27 27 27 27 27	27 28 28 28 28 28 28 28 28 28 28 28 28 29 29 29 29 29 29 30 30 30 30 30 30 31 31	31 31 32 32 32 32 33 33 34 34 34 34 35 35 36 36 37 37 37 38 38 38 38 39 40 40 40 40 40 40 40 40 40 40 40 40 40	41 41 42 42 42 43 44 44 44 45 46 46 46 46 47 47 47 47 47 48 48 48 49 49 49 50 50 50 50 50 50 50 50 50 50 50 50 50	52 53 53 53 53 54 54 55 55 56 56 56 56 57 57 58 58 58 58 59 60 60 60 60 61 61 62 62	62 63 63 64 64 64 65 65 66 66 66 67 67 67 67 67 68 68 68 68 69 69 70 70	70 70 70 71 71 71 71 71 72 72 72 72 72 72 72 72 72 72 72 72 72	72 72 72 72 72 72 72 71 71 71 71 71 71 70 70 70 70 69 69 69 68 68 68 68 68 68 68 67	677 667 666 666 666 666 665 655 655 652 662 661 661 661 660 660 660 660 660 660 660	59 58 58 58 58 57 57 57 57 56 56 55 55 54 54 54 54 53 53 52 52 52 51 50 50 50 50 50 50 50 50 50 50 50 50 50	48 47 47 46 46 46 45 45 44 44 44 44 43 43 43 42 42 42 42 41 41 40 40 40 40 40 40 40 40 40 40 40 40 40	36 36 36 36 35 36 35 35 34 34 34 34 33 33 32 23 22 32 31 31 31 30 30 30 30 30 30 30 29
Mean	27.9	28.8	35. 6	46.4	57.1	66. 5	71.7	<b>6</b> 9. 9	63. 2	53.6	42.0	32. 5

Annual mean, 49.6°.

#### Percentage of Possible Sunshine

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An'l
1893	 46 49 52 46 63 52 55 55 51 51 49 31 58 35 42 37 48 36 48 36 48 48 48 48 48 48 48 48 48 48 48 48 48	55 54 74 54 54 48 54 49 70 58 59 53 65 48 65 48 65 47 66 68 65 57 72	60 60 58 54 44 52 44 43 50 55 53 60 60 52 45 45 79 61 61 61 67	53 52 50 61 57 43 73 58 27 44 65 53 63 59 59 59 54 55 51 61 62 64 65	48 57 63 58 43 44 65 51 47 65 77 62 66 68 47 59 63 52 60 56 66 61 47 69 61	46 62 50 57 56 51 73 68 73 65 40 55 59 64 62 79 57 86 78 61 64 61 66 67 73	62 73 55 51 48 55 69 58 55 60 69 63 73 81 73 74 74 73 56 66 66 56 56 66 56 56 66 66 56 66 66	56 64 67 61 56 49 61 52 71 58 61 63 68 73 66 67 47 67 47 60 71 72 61	62 58 68 51 69 71 60 58 51 77 61 51 72 42 65 57 64 60 60 60 73 73 71 55 60 60 60 60 60 60 60 60 60 60 60 60 60	64 48 61 38 57 50 44 43 69 57 62 54 66 61 51 66 61 58 68 68 68 68	63 49 37 40 43 56 41 45 41 48 61 44 35 56 40 34 58 58 51 50 54 65 42	47 52 43 64 65 46 65 46 65 46 65 46 65 46 65 47 48 49 49 49 49 49 49 49 49 49 49 49 49 49	577 578 533 533 529 566 522 559 561 544 600 644 600 644 600 645 657 657 657
1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1934 1934 1944 1944 1945 1946 1947	50 55 58 39 55 48 36 65 58 38 71 32 40 48 40 49 40 49 40 49 40 49 40 49 40 59 40 40 59 40 59 40 59 40 59 40 59 40 59 40 59 40 59 40 59 40 59 40 59 40 59 40 59 40 59 40 59 40 59 40 59 40 59 59 59 59 59 59 59 59 59 59 59 59 59	46 54 38 54 65 53 40 65 55 61 70 44 70 55 56 62 62 64 65 65 65 66 66 67 68 68 68 68 68 68 68 68 68 68 68 68 68	64 57 48 52 63 57 69 67 67 64 47 49 58 58 58 49 60 55 49 67	46 43 62 60 65 59 85 70 45 73 68 49 40 48 49 64 49 64 49 65 65 53 65 65 65 65 65 65 65 65 65 65 65 65 65	56 64 73 64 65 61 63 48 58 58 69 66 71 63 69 65 64 62 49 58 56 69 69 69 69 69 69 69 69 69 69 69 69 69	522 73 55 62 64 68 67 55 67 67 67 66 64 63 63 66 65 66 65 66 66 66 66 66 66 66 66 66	74 59 64 55 55 65 58 59 59 59 59 59 67 52 70 64 63 57 55 65 65 67 66 67 67 69 69 69 69 69 69 69 69 69 69 69 69 69	57 79 52 67 64 69 69 69 56 69 56 60 76 60 76 61 71 69 69 60 76 60 76 77 71 69 71 71 71 71 71 71 71 71 71 71 71 71 71	60 72 67 59 56 58 71 51 55 73 65 72 48 57 69 57 69 57 69 57 69 57 69 57 77 57 59 57 59 57 57 57 57 57 57 57 57 57 57 57 57 57	67 62 58 73 42 57 74 67 56 57 65 57 64 57 62 60 63 41 61 61 62 72 80	30 32 47 49 58 54 45 36 52 51 56 50 44 31 58 54 54 54 54 54 54 54 54 54 54 54 54 54	53 46 34 42 43 47 46 53 60 60 42 46 44 44 44 45 46 47 48 49 40 40 40 40 40 40 40 40 40 40	55 58 55 55 56 60 57 53 59 60 56 55 55 54 55 56 60 58 55 56 60 56 57 57 59 60 56 57 57 57 57 57 57 57 57 57 57 57 57 57
Mean	49	56	58	57	59	62	63	63	61	58	48	48	57

#### Office Locations, 1870-1947.

On October 29, 1870, a meteorological station of the Signal Corps was established at the Old State House. It was moved to 103 Court St., on January 1, 1871, and to the Equitable Building, Milk St., on August 12, 1875, then to the Post Office Building, East Tower, on October 1, 1884, remaining there until the building was razed. From January 7, 1929 until September 29, 1933 observations were taken at Young's Hotel Building, Court St. The new Post Office then being ready for occupancy, the City Office of the Weather Bureau moved into the 19th floor, and observations were taken on the roof, 386 feet above the ground until the end of 1935. Meanwhile a meteorological station was established at the East Boston Airport, where pibal observations began November 1, 1926. Beginning January 1, 1936 the Weather Bureau Airport Station readings became the official record for Boston.

By act of October 1, 1890, the Weather Bureau was organized under the Department of Agriculture, and on July 1, 1891 the Civil Weather Service was transferred from the Signal Corps of the Army. On June 30, 1940 the Weather Bureau was transferred to the Department of Commerce.

### Hours of Sunshine

						115 01	эцпан						
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1893 1894 1895 1896 1897 1898 1900 1902 1902 1903 1905 1906 1907 1908 1911 1912 1913 1914 1915 1918 1919	135 143 155 136 164 185 154 152 149 151 171 172 123 110 136 141 144 91 110 123 110 136 141 141 141 141 141 141 141 141 141 14	161 159 218 167 159 142 160 146 208 170 174 164 188 192 141 185 171 141 202 203 144 171 171 170 213 143	221 222 215 208 165 194 163 237 158 187 203 197 224 223 192 192 192 238 193 163 259 238 193 164 292 224 238 238 238 238 238 238 238 238 238 238	212 208 202 246 227 174 292 234 175 261 251 261 254 237 236 300 234 237 236 217 220 204 254 254 254 254 254 254 254 254 254 25	219 260 287 263 196 198 292 232 295 347 281 298 223 229 292 212 295 347 211 267 283 233 329 224 252 259 274 4311 276 252	222 286 254 260 258 234 311 332 295 183 361 259 361 259 363 361 259 373 390 353 227 304 366 306 306 306 306 306 306 306 306 306	289 340 253 220 252 220 252 316 320 266 253 330 277 319 336 314 338 338 339 335 254 275 260 271 301 301 301 301 301 301 301 301 301 30	241 275 289 262 270 242 210 261 223 304 249 262 271 292 312 255 314 282 281 301 287 201 253 304 305 306 307 264 264 265 277 277 277 277 277 277 277 277 277 27	231 216 255 266 216 225 218 219 229 229 229 241 241 224 224 224 275 242 241 224 224 224 276 277 277 277 277 277 277 277 277 277	219 165 208 132 230 171 150 146 236 212 184 224 173 199 206 225 210 209 209 200 238 186 165 166 175 175 175 175 175 175 175 175 175 175	184 143 110 119 126 164 120 180 141 179 130 103 166 119 101 171 170 150 160 160 160 160 160 160 160 160 160 16	130 148 123 184 132 153 153 142 121 142 168 107 127 135 160 140 140 140 140 140 140 140 140 140 14	2556 2557 2412 2370 2316 2652 2527 2349 2479 2475 2452 2700 2649 2763 2763 2547 2764 2902 2623 2452 2705 2668 2452 2688 2688 2454 2484
1921 1922 1923 1924 1925 1926 1927 1928 1930 1931 1933 1934 1935 1936 1937 1938 1939 1941 1941 1942 1943 1944 1945 1944 1945 1947	163 172 116 162 141 106 133 191 171 113 208 96 175 118 142 175 121 121 121 121 121 121 121 121 121 12	159 114 160 199 156 118 201 181 170 183 132 167 163 114 135 170 188 166 190 166 167 202	210 178 193 234 210 211 255 247 211 236 193 222 195 237 225 204 236 176 180 214 217 181 222 204 214 217 182 222 204 214 217 218 219 219 219 219 219 219 219 219 219 219	174 248 241 261 236 343 279 182 293 275 197 278 162 192 208 233 177 257 211 240 211 227 233	288 332 291 225 274 283 218 262 326 271 284 338 282 311 254 320 244 279 279 276 262 160 255 310 255 310 262 168 244 236	332 251 281 311 270 306 249 346 306 268 291 289 207 229 241 302 295 275 259 208 315 217 227 313 290	274 294 255 347 301 268 241 298 274 244 343 291 286 369 309 242 325 293 243 265 293 243 265 293 249 249 255 293 249 289 289 289 289 289 289 289 289 289 28	339 224 286 275 294 200 233 242 296 294 240 332 239 241 267 326 263 294 281 310 254 317	269 252 222 209 215 266 193 205 275 243 200 120 120 122 213 230 224 290 214 291 224 294 294 295 2187 224 245 245 245 245 245 246 247 247 248 248 248 248 248 248 248 248 248 248	224 214 200 251 145 196 253 230 193 195 223 174 218 187 251 198 162 217 251 140 209 209 217 273	94 139 145 171 160 160 132 105 136 155 149 130 90 148 141 160 170 1217 122 158 130 122 168 165	132 96 118 122 134 130 152 171 118 130 125 140 126 108 93 31 225 110 126 108 127 110 128 129 129 129 129 129 129 129 129 129 129	2659 2514 2512 2723 2596 2401 2651 2651 2712 2724 2621 2781 2537 2518 2265 2644 2470 2428 2470 2428 2470 2428 2470 2472 2595 2472 2595 2472 2595 265 2666
Aver'. Posble	295	166 †297	214 371	401	266 452	283 455	292 461	429	374	198 343	143 295	284	2568 4457
		1											

<sup>†</sup> Leap years not considered.

# EXTREMES OF BAROMETRIC PRESSURE, 1872-1947

Sea Level Pressure

Sea Level Pressure											
MONTH	PRESSURE										
	Aver- age	Maxi- mum	Year	Day	Mini- mum	Year	Day				
January February March April May June July August September October November December	30. 01 30. 07	31. 00 31. 03 31. 02 30. 72 30. 63 30. 57 30. 51 30. 48 30. 65 30. 76 30. 87 30. 96	1920 1920 1943 1945 1936 1884 1892 1934 1888 1879 1932 1887	31 1 9 12 22 15 7 31 7 26 28 1	28. 67 28. 69 28. 45 28. 86 29. 09 29. 26 29. 21 29. 26 28. 62 28. 62 28. 62 28. 97 28. 73 28. 49	1913 1895 1932 1943 1945 1923 1932 1924 1944 1925 1873 1942	3 8 7 14 11 27 2 26 15 25 18 2				
Average or Extremes	30.01	31. 03	1920	Feb. 1	28. 45	1932	Mar.				

#### KILLING FROSTS

Year	Latest date in spring			Latest date in spring	Earliest date in autumn			
1872	May 3 May 3 April 22 April 10 April 19 Mar 26 April 20 April 13 April 21 April 26 April 20 April 16 April 26 April 26 April 27 April 15 April 19 April 25 April 25 April 26 April 27 April 26 April 27 April 28 April 29 April 21 April 27 April 21 April 27 April 27 April 28 April 29 April 29 April 20 April 20 April 21		1942 1943 1944	April 10 April 14 April 14 April 14 April 19 April 11 April 12 April 11 April 18 April 11 April 18 April 19 April 19 April 19 April 19 April 20 April 21 April 20 April 21 April 20 April 21 April 20 April 30 April 31 April 12 April 12 April 14 April 24 April 15 April 16 April 17 April 18 April 19 April 19 April 19 April 19 April 19 April 10 April 11 April 11 April 12 April 11 April 12 April 12 April 18 April 19 April 19 April 19 April 19 April 19 April 19 April 10 April 10 April 10 April 11 April 11 April 12 April 16 April 18 April 19 April 18 April 19 April 10 April 10 April 10 April 11 April 11 April 11 April 11 April 12 April 16				

Average date last killing frost in spring, April 17. Latest date, May 19, 1944. Average date first killing frost in autumn, October 24. Earliest, September 26, 1879.

## Prevailing Wind Movement

Wind	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
North ) per cent of time. hourly velocity	11 11	9	8 11	8	6 9	6 7	6 <b>8</b>	6 8	9 8	8 10	10 10	10 10	8 9.6
Northeast { per cent of time. hourly velocity	5 12	6 12	8 12	9 12	10 10	8 10	7 8	8 9	9 10	7 11	6 11	4 10	7 10.6
East { per cent of time. hourly velocity	4 11	5 9	9 <b>10</b>	13 10	15 9	14 8	13 8	13 <b>8</b>	11 8	8	6 10	4 10	10 9.1
Southeast. { per cent of time. hourly velocity	9	5 <b>9</b>	6 9	7 9	7 9	6 <b>8</b>	7	8 7	7 8	5 8	5 9	4 8	6 8.3
South { per cent of time. hourly velocity	5 10	6 9	7 10	8	10 10	10 8	10 9	9 <b>8</b>	9 <b>9</b>	10 8	8 10	5 <b>3</b>	8 9. 3
Southwest   per cent of time   hourly velocity.	18 11	15 11	16 11	16 12	21 <b>10</b>	24 10	29 <b>10</b>	25 9	22 <b>10</b>	21 <b>10</b>	20 11	17 11	20 <b>10.6</b>
West { per cent of time. hourly velocity	28 12	26 12	23 12	19 12	17 10	19 7	18 8	16 8	15 9	21 10	24 11	28 12	21 10. 4
Northwest { per cent of time. hourly velocity	25 12	28 13	23 13	20 12	14 11	13 11	10 9	15 9	18 <b>10</b>	20 11	21 11	28 12	20 11. 1
Prevailing direction	w.	nw.	w.	nw.	sw.	sw.	sw.	sw.	sw.	w.	w.	w.	w.

Based on 30 years records, 1918-47: Calm is not included in the above table because the percent of time is less than  $\frac{1}{2}$  of 1.

THE RESERVE



